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SMALL ISSUE INDUSTRIAL DEVELOPMENT BONDS AS A SOURCE OF CAPITAL FOR SMALL BUSINESS EXPANSION

HEARINGS

BEFORE THE

SUBCOMMITTEE ON SMALL BUSINESS:
FAMILY FARM

OF THE

COMMITTEE ON SMALL BUSINESS
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

SMALL ISSUE INDUSTRIAL DEVELOPMENT BONDS AS A SOURCE OF CAPITAL FOR SMALL BUSINESS EXPANSION

MAY 22 AND JUNE 11, 1985

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SMALL ISSUE INDUSTRIAL DEVELOPMENT BONDS AS A SOURCE OF CAPITAL FOR SMALL BUSINESS EXPANSION

WEDNESDAY, MAY 22, 1985

U.S. SENATE,
SUBCOMMITTEE ON SMALL BUSINESS: FAMILY FARM,
COMMITTEE ON SMALL BUSINESS,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:10 p.m., in room SR-428A, Russell Senate Office Building, Hon. Larry Pressler (chairman of the subcommittee) presiding.

Present: Senators Pressler, Nickles, D'Amato, and Bumpers.

Staff present: R. Michael Haynes, chief counsel; Robert M. Wilson, counsel; Tom Hohenthaner, professional staff member; John W. Ball III, minority staff director; and Tracy Crowley, hearing clerk.

STATEMENT OF HON. DON NICKLES, A U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator NICKLES [acting chairman]. Good afternoon. Senator Pressler will be here in a moment, and he is chairing this committee meeting. I hope that he will be here shortly. The reason I want to begin is because we have a vote and possibly by beginning we can avoid inconveniencing everybody too much.

I think today's hearing is important. We are pleased to see that we have several outstanding witnesses. Also, I want to thank Senator Pressler and his leadership for looking into what I believe is a very important issue of capital formation for small business. As I see it, this overall concern that we have on behalf of small business in the country is indeed important. Industrial development bond financing is part of this overall concern.

IDB's have been criticized because of their limited availability and questionable public benefit from projects financed by them. Over the past 3 years, we have seen the Tax Equity and Fiscal Responsibility Act and the Tax Reform Act make changes which were intended to address these problems. However, there is still continued interest in the total level of IDB financing that should be made available to private concerns and the types of projects that should be eligible for such financing.

In the area of small issues, the rules have been tightened substantially to provide financing only for those projects which provide for the greater public benefit. These projects, such as manufacturing, provide high levels of employment which serve a definite

public good by expanding a community's industrial base and, therefore, provide more jobs.

The small issue exemption is due to expire on December 31, 1986, with the exception of manufacturing facilities which will expire in 1988. This was intended to give Congress and the administration time to evaluate the effectiveness of these small issues under the new rules. It is my opinion that the results of those findings will probably be positive and show that such issues should be continued after these sunset dates.

We have eliminated the flagrant or, at least, I hope that we have eliminated the flagrant abuses and have established overall State caps for total IDB issuances. This should provide adequate restrictions on their usage.

With regard to the November Treasury tax reform proposal and forthcoming administration proposal, it appears that very restrictive rules regarding IDB's will be recommended. Such proposal would effectively kill the small issue IDB Program and should be carefully considered before Congress takes any affirmative action on any tax reform plan that treats IDB's in this fashion.

It is also my pleasure to have Gerald Harris join us today from Pryor, OK, as a small manufacturer which is also my background and also is eligible for small issue financing. I think he is a good example of some of the positive benefits from the small issue program.

Mr. Harris, I am going to take the opportunity that I have now—I am expecting Senator Pressler will be here momentarily—to enter some comments on your behalf. I don't know how we are going to handle this vote. There is Senator Pressler, so I will make these comments and then turn the meeting back over to him.

To the chairman, it is my pleasure to present to the committee Mr. Gerald Harris who is president of HEM of Pryor, OK. HEM is the manufacturer of metal-cutting saw band machines.

Mr. Harris' company employs about 90 employees which, by Pryor, OK, standards, is substantial. They have been in Pryor since 1976 and they have experienced substantial expansion since moving to the State. Before the move to Oklahoma, HEM operated in 16,000 square feet of manufacturing capacity and is now at 54,000 square feet, largely with the aid of small issue development bonds.

HEM represents approximately 2 percent of the employment in Mayes County. This somewhat stresses the importance of its survival to the economic well-being of that region of the State.

Jerry Harris founded HEM in 1966 and is an experienced, professional engineer. The company started with 1,100 square feet and three employees and now is several times that.

HEM, faced with the dumping of saw bands by the Japanese in the United States, decided to take aggressive action and look nationwide for a market and a favorable economic environment to improve its business. It located in Oklahoma and has experienced substantial growth. We are quite proud of Mr. Harris, and his company, and their employees.

Again, Mr. Chairman, I want to thank you. I have made my opening comments, and it looks like we have a vote going right

now. I appreciate your willingness to have this hearing and also to have Mr. Harris join us.

Senator PRESSLER. I thank you very much. We do have a vote on, and I will recess until after the vote. Please excuse us.

[Short recess taken.]

STATEMENT OF HON. LARRY PRESSLER, A U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator PRESSLER. We will now call this meeting back to order and thank you all for your patience. We just had a vote on procurement of a battleship, so I will change subjects slightly and thank my friends very much for waiting.

I want to thank the witnesses for taking the time to be here. Earlier this year, we conducted hearings in this subcommittee which focused on a number of issues, the impact of some of our economic trends on banks, small businesses, and rural communities. Today, we will be looking at the successful programs several State and local governments have operated to fill the credit market gap by using tax-exempt small industrial development bonds.

With the affordable capital made available through IDB's, small businesses have been able to begin operations or expand, thereby creating new jobs and generating added tax revenues for the economy. This point is made very well in a recent letter I received from Watertown, SD, Director of Industrial Development. Watertown, a town of approximately 15,000 people, has used IDB financing to help create 655 new jobs during the last decade. This type of development is truly important to the economy of a small town faced with a rapidly changing agricultural economy. I will include this letter in the hearing record.

The purpose of this hearing is to explore the usefulness of small issue bonds as a source of financing for small businesses. During the course of this hearing, we will hear from several panels of individuals involved at different levels of the IDB process. We will hear from small business persons who have received financing through issues of IDB's. We will learn from the experiences of the State and local authorities who issue, or coordinate the issue of, these tax-exempt bonds. We will also hear from underwriters who are involved in putting these issues together and marketing them to investors.

There is another side to the IDB story. In 1981, the Congressional Budget Office issued a report which revealed that between 1975 and 1980, the sale of small issue IDB's increased from $1.3 billion to about $8 billion. CBO estimates revenue losses from these bonds at $3.7 billion in 1984, $4.3 billion in 1985, and $5 billion in 1986. Treasury's figures are lower, estimating losses to the Federal Government at $2.25 billion in 1984, $2.56 billion in 1985, and $2.88 billion in 1986.

Because of the growth in the volume of these bonds and the corresponding loss of revenue, the administration in recent years has recommended and supported legislative proposals to restrict the use and growth of so-called private purpose, tax-exempt bonds. The administration has argued that the growth in this bond market increases the cost of other State and local tax exempt financing, that

IDB's are an inefficient and unfair Federal subsidy for businesses which are able to secure this type of financing, and that these bonds result in significant revenue losses to the Government.

Congress has responded to these arguments and, through the Tax Equity and Fiscal Responsibility Act of 1982 and the Tax Reform Act of 1984, has placed restrictions on the use of small issue bonds. The Treasury Department will certainly propose further restrictions in its forthcoming tax reform proposal.

I had hoped we might have a witness from the Treasury Department with us today. In a conversation I had with Secretary of the Treasury Baker, he indicated his desire that the Treasury not be required to testify about its tax reform proposal before it is released next week. I can understand the Secretary's concerns and have his assurances that representatives of the Treasury will be made available to us following that document's release which will occur next Tuesday, as I understand it. For this reason, I will hold a second day of hearings as soon as the Senate returns from its upcoming recess to receive testimony from the Treasury.

Hopefully, through these hearings, we will come to a better understanding of the true value of tax exempt IDB financing. This understanding should prove extremely valuable in the debate over the future of IDB's which will soon begin in both Houses of Congress.

With that opening statement, I would like to welcome our witnesses and say that I would like them to limit their oral statements, but that we will place their entire written statements in the record. Then, we will have questions, and there may be written questions submitted by other Senators who could not be here this afternoon. They will be made a part of the record.

The administration has delayed announcing its tax return plan. It was to be announced by today. That is why this hearing was scheduled for today, but the President will be making a speech next Tuesday, as I understand it. When we come back from the Memorial Day recess, we will have a second hearing with Treasury here. We will submit the Treasury's statement and questions to each witness. If they wish to respond to what the Treasury says, that would be most useful. This is the procedure we will use.

There may be rollcall votes, and I may have to go vote during the hearing. If that occurs, we will recess briefly. However, in light of the time, I will again ask witnesses to summarize their statements in about 5 minutes. Giving it in your own words is even better. Then, your written statement will be in the record, and we will have questions for you.

The first panel has already been called forward, which is excellent. We have Gerald Harris, the president of HEM, Inc., from Pryor, OK, who has been introduced. We have Jack Dinos, chairman of the Southern Tea Co., Marietta, GA; Jerry Boerboom, the chief financial officer of Litchfield Precision Components from Litchfield, MN; and Henry Berry, the president of Engineering, Inc.; from Hampton, VA. I will call on Mr. Harris first because he is first on the list.

STATEMENT OF GERALD HARRIS, PRESIDENT, HEM, INC., PRYOR, OK

Mr. HARRIS. Thank you, Senator Pressler.

The history of our company is that we did start in California, northern California, as a small machine tool builder. Machine tools are a very basic component of all of our manufacturing industry in the United States. As we began to grow in California, we began to face ultimately some problems, and that was acquiring the finances to expand and, simultaneously, finding ways to fight the competition that was beginning to develop from overseas.

In looking for a solution for this problem, and in my sales travels for our company, I would inquire in different locations what means they had for inducing industry to their area and what they could do for industry. I met Gene Redden at the Mid-America Industrial Park, and he showed me what he had been doing in Oklahoma, and I saw a very excellent industrial park. Coupled with that was a building that was available and bonding that was available for building expansion, for business expansion with only really one proviso, and that was you showed that the business could be successful.

So, we did move to Oklahoma. We started to expand almost immediately. We were very fortunate in our timing. The oil industry was beginning to boom and get very active, and the machine tool industry was in a growth period in the United States.

By using the bonding, we were able to expand our business in floorspace area eight times. That would be like expanding this room eight times larger. We did this in a period of 5 years. Our employment went from 16 people in California, we have 90 now, and this is at a recovery point in a recession, a machine tool recession.

The people that we employ in the industrial park are engineers, technicians, and office people. The engineers, of course, are graduates of the State of Oklahoma universities, and the technicians are people that we have hired locally and some that we have been training. Many of those people farm part time, so we have been adding skills to their abilities.

Without the bonding available, the finances necessary to expand the building would have been impossible, and our growth would have been impossible. One of the consequences would have been that our sales would have been less in the United States, and the worst thing about it is that sales from manufacturers overseas, Germany, Taiwan, Korea, West Germany, would have increased. Our ability to compete in the marketplace and build a good American product meant that their penetration at that period of time was kept to a minimum.

Our company today is in the forefront of bandsaw machine tools. Our bandsaws, to give you a graphic idea of what they are, are for industries like Bethlehem Steel, Carpenter Tool Steel. These companies will buy machines about the size of this room. They are not what many people think of as a bandsaw, something that you put in your garage. These are a little bit big.

The future for us is the thing that I am most concerned about. In future expansions, one of the things that we need to do is add

showroom facilities, training facilities. We bring people to our State from all over the country for training on running bandsaw machines. Funding is going to be necessary for us to be able to expand our operation. Our competitors, we have a Japanese competitor in southern California who has a $10 million showroom building displaying equipment. Bandsaws are now a small part of their operation. We also have competitors from Germany who are taking a very active part in the United States, from mainland China, the People's Republic of China, and Taiwan.

In order for us to compete successfully, we have to continue to expand and we have to continue to develop the product line. Without that product line development, again, our sales would be limited. So, it will require a continual influx of capital to do the expansion.

There are several other things that we also need to see. I know this is a little off the subject of the investment bonds, but it is important, because for businesses to be successful, they also have to have some other assistance. One is we need to think of product liability problems that are occurring today and the litigation that occurs from product liability problems. In many cases, and in our particular industry, litigation consumes $6 out of every $7 spent for product liability insurance. To put that in perspective is important. If we compare our annual payroll which today in Oklahoma is $1.5 million, 6 percent of that is spent for product liability insurance. It is rising dramatically and creating a tremendous problem.

Other things that are important for our industry in Oklahoma for us to continue to be successful is that the investment tax credit remain. Primarily, it would be advantageous if it were primarily for the American machine tool builders. If it is allowed to continue for manufacturers overseas, what happens is that our tax money, the money that we are talking about helping American businesses expand with and development bonds, is being sent overseas to other companies. In no way am I talking about inefficient operations. I am talking about those industries that are technologically sound and innovative in their manufacturing.

Another problem that we have in the machine tool industry is the very high dollar. I speak to that issue not only as a machine tool builder, but also from a State that is very large in agriculture, and we all know what has happened in that area.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Harris follows:]

STATEMENT OF GERALD R. HARRIS, PRESIDENT, HEM, INC., PRYOR, OK

WHAT WE DO AND WHO WE ARE

HEM, Inc. is a producer of metal-cutting band saws used to cut small pieces of metal from larger ones as the first step in the manufacturing process.

We employ 90 people and have an annual payroll of approximately $1.5 million. Approximately $1.1 million is spent on supplies from local suppliers annually.

HEM, Inc. is one of 35 plants in the Pryor, Oklahoma Mid-America Industrial Park development. We moved to Oklahoma in 1976 into an existing building of approximately 8,400 square feet with 3.8 acres and have expanded to 67,000 square feet and 9 acres. This expansion was funded with tax-exempt industrial bonds.

We sell band saws throughout the United States, marketing through 60 distributors. We are the leading producer of automatic production cutting horizontal band saws in the United States.

WHO WE WERE

HEM, Inc. (formerly Harris Engineering and Manufacturing Company) was located in the San Francisco Bay Area of California prior to 1976. We employed 16 people and occupied 6,000 square feet of floor space.

THE FUTURE AS WE SAW IT IN 1974

In approximately 1974 HEM, Inc. (known as Harris Engineering and Manufacturing Company at that time) was facing two severe problems. The first problem was expansion. If our business was to compete effectively in the band saw marketplace, it would be necessary that we expand our facilities and hire additioinal employees to step-up production, or face the dilemma that we were too small a business to compete in the world market. The second problem was the apparent dumping of band saws on the American marketplace by Amada, a Japanese band saw manufacturer (the world's largest band saw producer). Amada's planned take-over of the American market mirrored their similar and successful take-over of the European band saw marketplace. In 1975 Gerald Harris reported to the Treasury Department regarding what he perceived as the dumping of Japanese saws by Amada into the American marketplace, a practice that had dismally affected band saw sales at HEM, Inc. The Treasury Department employee who answered Mr. Harris' telephone call offered, " If you cannot compete, get out of business."

WHAT WE DID

Next, Mr. Harris sought financial backing and a new, growth potentiating location that would be removed from the Japanese target area on the west coast. By moving HEM, Inc. it was hoped that the company would be afforded the necessary time for maturity and expansion. Gerald Harris, as sales representative and president of HEM, Inc., traveled to many states. While making sales calls in various areas of the U.S., he often inquired about the availibility of land, buildings and financing. He was introduced to Gene Redden, the administrator of the Mid-America Industrial Park, an Oklahoma trust under the name of Oklahoma Ordinance Works Authority. A lease agreement was entered into between Gerald R. Harris, d/b/a Harris Engineering and Manufacturing Company, and the Oklahoma Ordinance Works Authority (a public trust and agency of the State of Oklahoma which seeks to aid in the State's industrial development and in the increase in available employemnt for the State's citizenry). Through the assistance of the State Authority we were subsequently able to receive additional funding for building expansion.

INDUSTRIAL DEVELOPMENT BONDING WITH THE STATE OF OKLAHOMA

+

HARRIS ENGINEERING AND MANUFACTURING COMPANY

=

HEM, INC., 90 EMPLOYEES AND 65,000 SQUARE FEET

Because of the provision in Oklahoma's State Consitution allowing for an exemption on machinery purchased for manufacturing and a tax holiday on ad valorem taxes combined with a concerted, concentrated sales effort, a total plow-back of profits, and tax-exempt bonds, Harris Engineering and Manufacturing Company became HEM, Inc., a strong and thriving small business capable of withstanding the financial hardships of a very deep machine tool recession. HEM, Inc. is recovering from the machine tool recession and is growing again, manufacturing additonal products. We are the only machine tool builder in the state of Oklahoma. We provide employment for engineers,technicians, skilled office workers and training for production workers. We are building a more stable work base for the people of the state of Oklahoma as we look forward into the future.

TODAY'S PROBLEMS IN OUR MARKET

Competition in the market place today is more difficult than ever before for several reasons:

1. The inflated value of the dollar on foreign markets causes U.S. manufactured band saws to cost more on the world market than saws manufactured in other countries. Recently, our company anticipated selling two saws to McDonnell Douglas Corp. in Tulsa, Oklahoma. Instead, they purchased two saws from a German saw manufacturer because the cost of the German saws was far below the cost of comparable U.S. manufactured band saws.

2. The saws of our foreign competitors have improved significantly. This marked improvement is largely due to governmental support and assistance in various forms such as the tax-free, rent-free environment and financial assistance for the purchase of new equipment as is currently offered by the government of Great Britain in an attempt to stimulate that country's manufacturing. Such exemptions and assistance afford a manufacturing business marked savings. Such savings can be spent on new products development, improved products, and improved manufacturing technology. As a matter of fact, government grants are also available for supplemental payment of the cost of new machinery used for manufacturing. Government assistance is also provided for industrial expansion instead of paying unemployment contribution insurance.

3. More competitors. When we started in the saw business in 1966 there were approximately six American saw manufacturers. Today those six still exist, some in very weakened conditions, and have been joined by saw builders from Canada, Japan, Korea, Mainland China, England, Italy, Spain, Taiwan, and West Germany. All of these manufacturers are soliciting in the U.S. marketplace. They are hitting us now from all sides.

4. Insurance costs have skyrocketed. In fact, our product liability insurance cost for the calendar year of 1985 is $100,000. That is one tenth of the amount that we spend for material to build our saws, or 6% of our labor costs. And, we have never been found liable in a product liability lawsuit. A deluge of product liability lawsuits adversely contributes to the struggle of the American machine tool builder. The insurance companies don't want us.

5. When our defense industry procures a machine tool because of

a low bid from a foreign machine tool manufacturer we hurt ourselves. With low labor rates, and all sorts of tax incentives from their government they will have a lower priced machine to sell to our government. Because of lower wages, such as described in the Economic Handbook of the Machine Tool Industry, page 248, competition is very keen. Should we ask our employees to take a wage cut? Would you take a wage cut?

Our defense industry is tax supported. When we purchase from another country we weaken ourselves in several ways.

A. We reduce employment in the machine tool industry and those unemployed Americans no longer pay taxes.

B. We risk losing the skills of those employees as they move on to more lucretive occupations. Should a crisis occur it would take a long period of time to train new people to replace those no longer here.

C. The time it takes to develop new skills could mean we as a nation would be in a weaker position to defend our selves. After all, it was our industrial might through manufacturing technology that made us the strongest industrial power in the world after World War II. And that leadership is slipping away.

There was a time when the United States of America lead the world in the manufacture of steel...of automobiles...of machine tools...of television sets...and so on. But, no more; those days are gone. We are no longer the world leaders in much of anything, except perhaps in the number of businesses no longer in operation.

TODAY'S SOLUTIONS

1. We must get the value of our dollar down relative to other currencies. This would make us more competitive in the world market and at home. Protectionism to protect inefficient or obsolete designs or poor manufacturing practices would be a disaster for our country. But, preventing HEM, Inc., the forerunner in band saw technology today from effectively competing in the marketplace because the ground rules are different (lack of support from our government) is like shooting ourselves in the foot and then complaining we American manufacturers do not know how to manage our businesses.

If we can't get our dollar down, a more immediate solution might be to make ourselves more competitive by bringing in cheap imported labor and lowering wages for all people, including our Congressmen, and importing material supplies. This would allow us to lower prices and be more competitive.

2. We will continue manufacturing the HEM SAW, we will continue to be the world's best in research of new products, we will provide the world's best customer service with a greater sales effort, and we will continue to provide training for all of our people in our manufacturing facility. One out of every nine of our employees works on new product development and on improving existing product lines. We are advertising more, making more sales calls, and adding employees in the service department for even faster response. We are planning an expansion in our plant for improved painting facilities just to improve the quality of our product. We are planning, as well, a new sales showroom for training and demonstrating our new saws. Profits be damned! Put the money into the future. But we couldn't do it by ourselves in 1976 and we will not be able to do it by ourselves in 1986. Tax-exempt revenue bonds could be part of the answer now as they were almost 10 years ago at the start of our expansion.

Much of American industry is castrated because they do not return a good profit today and at the same time complaints are made because they do not plan for the future. It would be very nice if the profit margins were or would be as great as some people think. But, in the machine tool business, profits (if there are

any profits) are spent competing with advantaged foreign competitors. Many of the American machine tool builders have given up. We are certainly not selling overseas, and neither are our farmers. Just look at the balance of payments. And, also look at who the countries we should emulate are. Everyone talks about Japan, they export machinery, cars, and manufactured products. America doesn't. Japan planned for the future by investing today for tomorrow.

3. Americans and HEM, Inc. thrive on competition. We're not concerned about our American competitors. Our fight is on the same turf with the same rules. Although our foreign competitors aren't any smarter or business-wise, they are equipped with arsenals of weapons to battle with us that we only dream about.

4. One of the things that would help us is Senator Bob Kasten's (R-WI) Product Liability legislation (S. 100) being passed. We are not asking that negligently manufactured products be allowed in the marketplace; rather that only sensible product litigation be permitted and that a reasonable time limit be placed on liability. Without changes, conscientious machine tool builders will be unable to afford insurance. Six out of every seven dollars spent for products coverage goes to litigation. The assets of the company are drained and the ability to provide the research and new products are taken by these costs.

5. When foreign machine tools are purchased with my tax dollars as they were when McDonnell Douglas purchased two German band saws this month, I feel that I am being wounded by my own government. Had they purchased two saws from an American competitor I wouldn't like it, but I would certainly feel differently. It is very hard to be supportive of our system and our government when it won't keep our manufacturing here in the United States so that our citizens will have employment and manufacturing skills. Without skilled workers we will become a weak nation unable to defend ourselves. After our stores empty we won't have the skills to keep the pipeline full. Other countries don't do this.

The House Armed Services Committee urges the Department of Defense (DOD) to avoid foreign machine tool purchases. The House Armed Services Committee has included language in its Committee report on the DOD authorization bill expressing strong reservations over the current DOD practice of purchasing foreign machine tools for use in government-owned facilities. None of our NATO allies permit this practice when domestic machine tools are available.

The Committee report indicated that DOD purchase of foreign machine tools represents a threat to the national security, because of the unavailability of spare parts and service during mobilization.

TOMORROW

If help is granted with bond issues to bring the costs of expansion down to a manageable level?

If litigation is made manageable by the passage of S. 100?

If the machine tool industry is considered valuable to our national defense as the National Armed Services Committe urges?

If the investment tax credit, my money and yours, is only given to American manufacturers?

If the value of the dollar is brought in line so we can compete in the world market?

If money is made available and at foreign interest rates we could have fast deliveries just like our foreign competitors.

Should the above projections be actuated, I see a bright future for HEM, Inc., for the American machine tool industry, for our farmers, and for the American manufacturing industry as a whole.

If not, I guess HEM, Inc. might consider manufacturing overseas to afford to compete in the marketplace. Many of our competitors in the machine tool business are doing just that. Saw manufacturers are now importing for sale in this country. Every imported saw is jobs lost, taxes lost, and skills lost.

HOPE FOR THE FUTURE

I'm looking for help to compete on the same basis, not for a handout, and I hope I get it.

HISTORY OF HEM, INC.

HEM, Inc. was founded in January of 1966 by Gerald R. Harris in Livermore, California. An experienced, professional engineer, Mr. Harris designed and developed an automation system and began a custom engineering and contract job shop. He later moved his operation to an 1,100 square foot facility where he and three employees began what is now HEM, Inc.

The following chronological listing depicts some of the accomplishments of the company:

1966	Began automating already existing saws for contract customers.
1969-71	Produced Model 500. Began research and development for Models 750 and 1000. Expanded to 2,200 square feet. Grossed $80,000.
1972	Introduced Model 1000.
1974	Discontinued contract work. Worked solely on production of saws and sawing systems. Expanded to 6,000 square feet.
1975	Introduced Model 1200.
1976	Moved facility to Pryor, Oklahoma with eight employees. Expanded to 8,000 square feet. Introduced Model 1500. Grossed $886,000.
1977	Introduced Model 2000-40 (our first "column" type saw).
1979	Began overseas marketing.
1980	Designed and built our first Material Handling System. Introduced Model 2000-30 (our largest "pivot" type saw).
1981	Began additionial operation in Van Buren, Arkansas.

1982 Expanded Pryor facility to 60,000 square feet - 125 employees.
Purchased four acres with an additional 3,500 square feet for Sales and Service.
Expanded Van Buren, Arkansas facility to 15,000 square feet.
Introduced Model 2000-60 ("column" type saw with expanded capacity).
September - Introduced the line of Verticals.
Progressed with Material Handling System for Models 1200, 1500, 2000-30.
Expanded marketing to Canada, Mexico and Continental Europe.

1983 Introduced High Speed Aluminum Saw.
Introduced High Speed 6' Index System for 1200 Series.

1984 Introduced V-100 Vertical Band Saw.
Began active production of V125/150 Vertical Band Saw.
Designed "Super" series band saws with patent applied blade enhancers for cutting extremely tough metals.
Introduced completely new series of bar feeds.

1985 Closed our Van Buren, Arkansas operation due to continued weak machine tool market and are using all available cash to increase our research and product development.
Expanded vertical saw lines.
Began shipment of our 2 new series of Horizontal saws, Models 1400 and 1600 with blade enhancers that prolong the life of the standard band saw blade.
Applied for patents through Canada and common market countries.
Starting design of a new Band Mill for cutting small steel strips off of steel slabs.

Enclosures:

Letter to our Vice President from The McClaren Company asking us to consider manufacturing in Japan.
General Horizontal Saw Line Catalog
Flier on one of our Vertical Saws
Drawing D-3012-001-00 Plant Layout
The Investment Link Between Taxes and Unemployment by NMTBA
Economic Handbook of the Machine Tool Industry

THE McLAREN COMPANY
INTERNATIONAL INDUSTRIAL CONSULTANTS

A.J. McLAREN
President

6851 LONGBOAT DRIVE
BOX 398
LONGBOAT KEY, FLORIDA 33548
PHONE (813) 383-2688
TELEX 467290 MCLIC

Tokyo, JAPAN
April 3, 1985

Mr. WILLIAM J. GIACOMETTI
Vice President
HE & M SAW
HEM, INC.

Gentlemen,

My associates here in Japan, AMT Co., Ltd., have asked me to contact you to find out if you would be interested in exploring the possibility of purchasing part of your machine component requirements in this area. As we are sure you know, many U.S. companies are already importing components in order to reduce their manufacturing costs, others are importing complete machines to complement their product lines. In the latter case the machines are usually supplied less controls and in some cases hydraulics, which are then added at the purchaser's facility. They are frequently supplied on an OEM basis so that the purchaser may use his name on the machine if he so desires.

To briefly introduce myself, I was associated with The Cross Co., now Cross and Trecker, for a good many years and so have a long background in the machine tool industry. I have known Mr. Momoki, president of AMT for about twenty five years and know they are a very reputable company as are the supplier companies they work with.

Some of the components that can be supplied are:

Feed units	Pallet change units
Index tables	Linear guide ways
Fixtures	Automatic tool change units
Spindles	Chip conveyors
Multiple heads	

Others are available on request.

I will be back in my office approximately April 20th so please contact me if you are interested in the above subject. Or if you prefer, contact AMT direct, Mr. Momoki's card is attached.

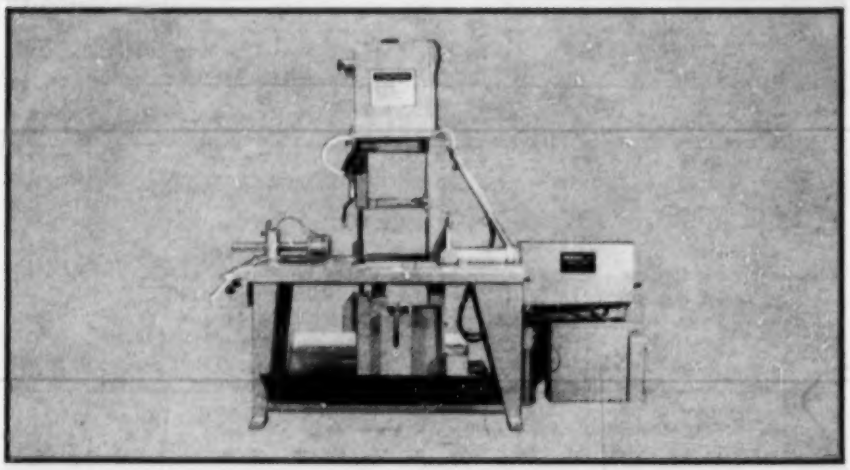
Sincerely,

A.J. McLaren

HE·M® SAW

HE·M INC.

P. O. BOX 1148
PRYOR, OKLAHOMA 74362
TELEPHONE (918) 825-4821



HE&M MODEL V-100 VERTICAL BAND SAW

✓ EASE OF OPERATION

The Model V-100 is easy to operate.

From one position at the front of the saw, the operator has all machine controls at his fingertips!

Components have been located to provide good visibility and accessibility during operation and service.

✓ DESIGN

This saw is designed with YOU IN MIND! ! !

The V-100's patented design allows for faster/straighter cutting. For optimum efficiency, operator-controlled features include:

- ✓ Variable Blade Speed
- ✓ Variable Cutting Pressure
- ✓ Variable Feed Rate

This very rigid and vibration-free saw allows one blade to do many operations.

Add to these outstanding features the lo-o-o-o-o-o-ng life of the blade and you can see why the V-100 is the saw designed to meet your needs!

✓ QUALITY

We feel our saw is of superior quality to anything on the market today!

We pride ourselves in the accuracy and precision we build into our machines.

Each saw is thoroughly inspected to the last detail before leaving our factory, ensuring that our customers purchase the finest quality saw possible!

✓ VERSATILITY

The V-100 is truly a versatile piece of equipment! The column tilts 45 degrees to the RIGHT and LEFT of vertical for miter cuts, with the same capacity either way! Air clamp can be mounted either right/left or center!

5/8" T-slots on the table are virtually the same as on a milling machine so standard milling machine tooling can be used!

Clamping and holding unusually shaped material is only limited by YOUR limitless imagination!

HE·M SAW THE SAW THAT CUTS STRAIGHT

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HEM SAW THE SAW THAT CUTS STRAIGHT

HE&M V-100 VERTICAL BAND SAW

SPECIFICATIONS

SAW CAPACITY:	14" HORIZONTAL,20" VERTICAL @90 DEGREES 14" HORIZONTAL,14" VERTICAL @45 DEGREES *Left or Right*
BLADE SIZE:	1" x 136" x .035" THICK
CUTTING PRESSURE:	*0-300 LBS. AT 100 LBS. AIR PRESSURE
BRUSH:	POWERED BRUSH ASSEMBLY BRUSH SIZE 1/2" x 4"
ELECTRICALS:	2 HP DRIVE MOTOR, 220/440V AC, 3 PHASE, 1800 RPM, BALL BEARING TFC, SEALED SUBMERSIBLE COOLANT PUMP
DRIVE MECHANISM:	TOTALLY ENCLOSED WORM GEAR REDUCER, RUNNING IN OIL, WITH VARIABLE SPEED DRIVE 60-300 SFPM.
CONTROL:	CONTROL STATION LOCATED ON FRONT OF MACHINE TO CONTROL PNEUMATIC AND HYDRO-PNEUMATIC AND ALL ELECTRICAL FUNCTIONS TO INCLUDE: ADJUSTABLE CUTTING PRESSURE, FEED TRAVERSE AND POWER ON/OFF. MACHINE IS A MANUAL TILT FOR CUTTING 45 DEGREES LEFT OR RIGHT.
COOLANT SYSTEM:	TOTALLY BUILT-IN COOLANT SYSTEM WITH HIGH PRESSURE COOLANT PUMP AND 12 GALLON CAPACITY TANK.
TABLE SIZE:	22 1/2" LONG x 25" WIDE
VISE CLAMP FORCE:	*1200 LBS. AT 100 LBS. AIR PRESSURE
AIR FILTER & LUBRICATOR	**SHIPPING WEIGHT: 2500 LBS. (APPROX.)**
WARRANTY:	THE SELLER WILL REPAIR OR REPLACE TO THE PURCHASER, UPON INSPECTION, ANY DEFECTIVE PART FOR ONE (1) YEAR FROM THE DATE OF SHIPMENT.

*UTILITY REQUIRED AIR PRESSURE: MIN. 70 LBS. MAX. 130 LBS.

DISTRIBUTED BY.....

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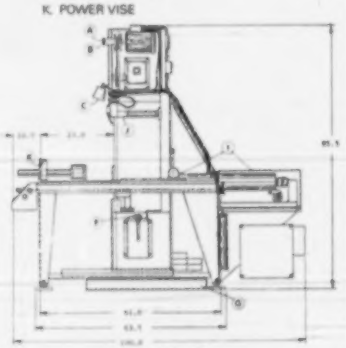
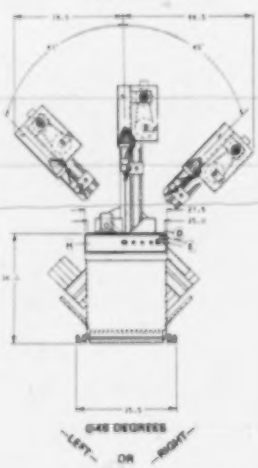
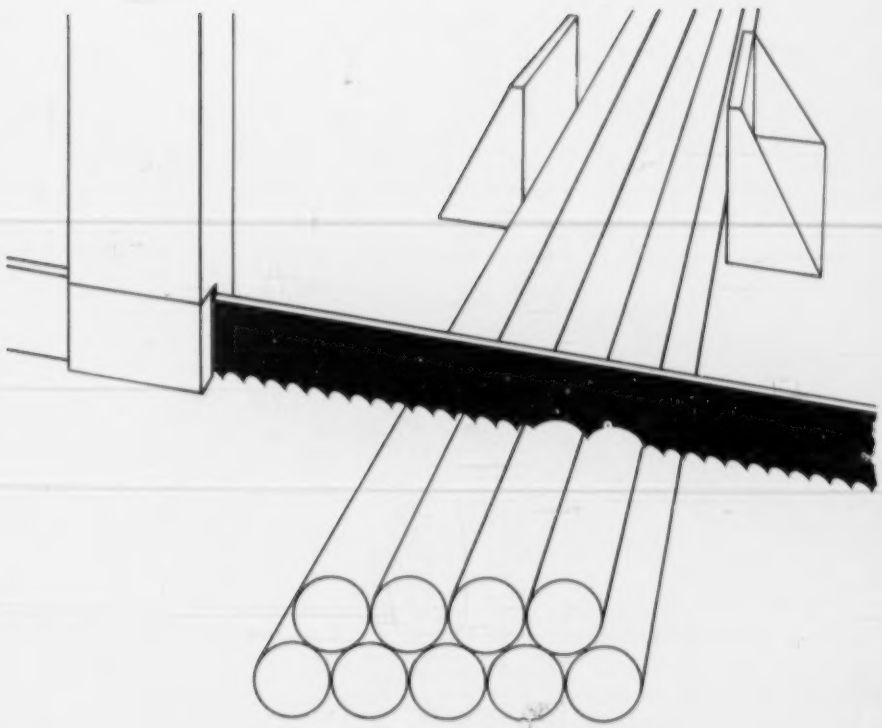
OTHER FEATURES INCLUDE:

A. SPEED CONTROL
B. BLADE SPEED INDICATOR
C. LIGHT TO ILLUMINATE THE WORK SURFACE AND SAW CUT
D. FEED RATE CONTROL
E. CUTTING PRESSURE & CLAMPING PRESSURE CONTROLS
F. BLADE TENSION HANDLE
G. COOLANT PUMP AND TANK
H. SWITCH VISE MOTOR FEED/STOP/RETRACT
I. ARM SUPPORT CARRIAGE
J. CARBIDE GUIDES
K. POWER VISE



@ 90 DEGREES



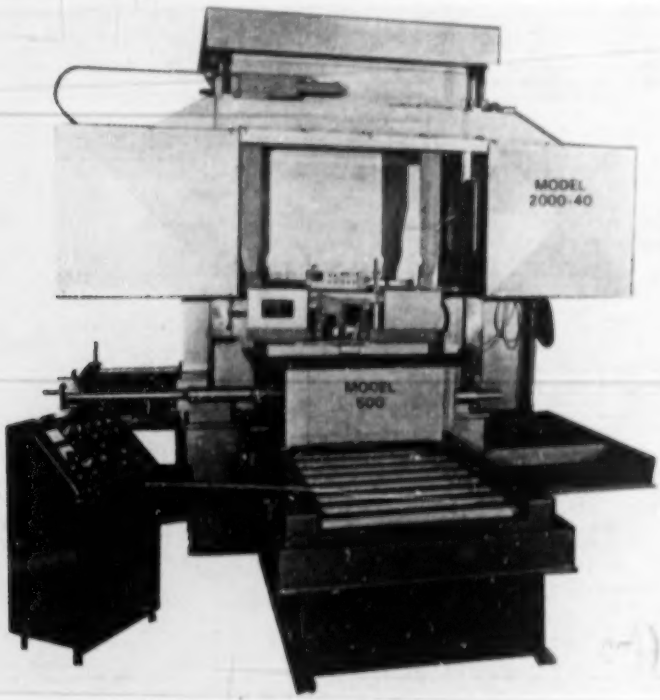


HEM SAW

The saw that cuts straight.

HE&M SAW

The saw that cuts straight.



WHY BUY A HE&M SAW?

Which saw should you select for your cutting needs? HE&M Saw is a leader in the industry and has one of the largest selections of saws for specialized cutting jobs. We at HE&M Saw hope this brochure will answer your questions about saw selection. Helping you solve your cutting problems with the right and most profitable decision is the purpose of this brochure.

HEM INC. Mid-America Industrial District, P.O. Box 1148, Pryor, Oklahoma 74362, (918) 825-4821

THE ECONOMICS OF SAW SELECTION

There is only one reason to purchase a metal cutting bandsaw - or any other equipment. That's to make profits. The profitability of a saw will depend on how fast it cuts, how many cuts it gets per blade, how much material it wastes due to imperfect cuts, how much operator time and attention it requires, and how well it stands up. In some circumstances, re-machining costs must also be considered. Obviously there are too many variables to put into a simple formula, but since each HE&M Saw excells in each consideration, you can be sure that a HE&M Saw will assure maximum profits.

Just to illustrate, consider that a better quality or heavier duty saw may double, triple or even quadruple or more the life of identical blades cutting identical materials.

Take the example of a saw using one electron welded blade costing $25 for one day, versus using that blade for two days. On the basis of five days a week, fifty weeks per year, a machine which uses one blade per day will require $6,250 in blades per year, but a machine which will extend the life of the blade to just two days will require only $3,125 in blades. Over a period of three years, savings in blades alone will pay for a $10,-000 saw.

But that's only the beginning of the story. Let's look at an example with a few more factors included. Assume you need a total of 3000 parts. You can select either Machine A or Machine B to do the job.

	MACHINE A	MACHINE B	DIFFERENCE (SAVINGS)
A. Cutting Rate in parts per hour	30	90	60
B. Blade usage in hours per blade	8	32	24
C. Blade Cost	$25	$50	(25)
D. Labor Cost per hour (including burden)	$10	$10	
E. Parts Required	3000	3000	
F. Total Cutting Time $\left(\frac{E}{A}\right)$	100 hours	33.3 hours	66.7 hours
G. Labor Cost (D x F)	$1000.00	$333.00	$667.00
H. Blade Cost $\left(\frac{F}{B} \times C\right)$	$312.50	$52.50	$260.00
J. Total Direct Job Cost (G & H)	$1312.50	$385.50	$927.00
K. Cost per Part (J ÷ E)	.44	.13	.31

Additional profits earned by using Machine B for this single production run—*$297.00!!*

This example ignores factors such as lower material waste rates, less (or no) finish machining, and so on. But if you consider that this is a relatively small job (only 100 hours even on the slower machine) just think what the savings would be if you kept the large machine busy on this job for a year. Machine B would easily pay for itself several times over in a year's time if it were kept busy.

It is important to recognize, of course, that an expensive machine using $50 blades is not *necessarily* more efficient than a less expensive saw using $25 blades. Efficiency comes from a high *quality* machine cutting at a rate which it can effectively handle. A large machine with the ability to cut very rapidly will be efficient only if it can be kept busy. Otherwise overhead and equipment cost nullify the savings in cutting costs.

Where the full high output capacity of a large saw, such as a HE&M Model 1000 or 1200, cannot be used, a smaller but highly efficient machine, such as the HE&M Model 750 or Model 500 will maximize profits.

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THE UNIQUE HE&M SAW RATING SYSTEM

For each blade there is an optimum size of material to be cut—a size which allows the saw to both cut quickly and to provide maximum blade life. This size is determined by the laws of physics governing the relationship between guide spacing and beam stiffness of the blade. (Anyone interested in the theoretical aspects will find them discussed in the section concerning "Beam Deflection" in any good engineering handbook. You will also want to read about the practical applications of the theoretical analysis in the HE&M booklet, Band Saw Cutting, A Practical Guide, which is available free from your dealer.)

This system may be unique in the rating of band saw machines; however, for simplicity of sales, many of these facts are often omitted by other manufacturers.

This information will definitely help guide you in the selection of the saw that best fits your needs. (See page 2 about the economics of saw selection.)

Thus, it is the blade which sets the limits as to the size of material which can be cut. These are the laws of physics, not the arbitrary rules of any manufacturer. The size and quality of the saw, of course, determine how well the blade is controlled, how much tension can be applied and how well it is held in alignment as it cuts, so within the outside limits set by the blade dimensions of the design of the saw is extremely important. A high quality half-inch machine will easily out perform a poor quality one inch machine. But even the best quality machine cannot cut *efficiently* if the blade is attempting to cut through a larger piece of material than the laws of physics permit. That is why different sizes of saws are made.

The HE&M Saw Rating System classifies each saw using three size ranges.

The OPTIMUM size range will give you the maximum blade life which you can expect from that size blade. Also, in the optimum size range, literally no skill, poor blades, etc., will still achieve straight cutting.

Using an electron welded blade, 20 to 40 hours of blade life would be a reasonable expectation when operating in the OPTIMUM size range. And you should get very rapid cutting. For example, in cutting 5" diameter C1215, 30 seconds per part and 40 hours per blade should be easily achieved. Our Model 1200 will do this easily and consistently. As a matter of fact, we will be happy to show you 20-second parts.

When your saw is being run in the ECONOMIC MAXIMUM size range, you would expect to reduce the blade life and cutting speed by up to 50%. This may be a very sound operating range if not used too frequently.

The DESIGN MAXIMUM is the absolute maximum size the saw will handle. Approaching optimum size levels of performance, in this range, are possible provided a skilled operator and good saw blades are used.

In general, you will want to select a saw which will be doing most of its production work in the OPTIMUM range. However, since a saw which is not kept busy cannot produce profits while it rests, you would also select a size which will allow you to keep it busy.

MODEL	MAXIMUM DESIGNED CAPABILITY	ECONOMIC MAXIMUM	OPTIMUM CAPABILITY
500	9" ROUND 9½"FLAT	7" ALUM. & BRASS 5" MILD STEEL 3" STAINLESS	4" ALUM. & BRASS 3" MILD STEEL 1½" STAINLESS
750	10" ROUND 12" FLAT	10" ALUM. & BRASS 7" MILD STEEL 4½" STAINLESS	6" ALUM. & BRASS 4" MILD STEEL 3" STAINLESS
1000	12¼" ROUND 12¾" FLAT	12" ALUM. & BRASS 8" MILD STEEL 6" STAINLESS	8" ALUM. & BRASS 5" MILD STEEL 4" STAINLESS
1200	14" ROUND 16" FLAT	13" ALUM. & BRASS 10" MILD STEEL 8" STAINLESS	10" ALUM. & BRASS 6" MILD STEEL 5" STAINLESS
1200L	16" ROUND 20" FLAT	13" ALUM. & BRASS 10" MILD STEEL 8" STAINLESS	10" ALUM. & BRASS 6" MILD STEEL 5" STAINLESS
1500	20" ROUND 25" FLAT	16" ALUM. & BRASS 15" MILD STEEL 11" STAINLESS	12" ALUM. & BRASS 10" MILD STEEL 7" STAINLESS
1500L	24" ROUND 25" FLAT	16" ALUM. & BRASS 20" MILD STEEL 11" STAINLESS	12" ALUM. & BRASS 10" MILD STEEL 7" STAINLESS
2000-40	40" ROUND 40" FLAT	25" ALUM. & BRASS 23" MILD STEEL 20" STAINLESS	20" ALUM. & BRASS 15" MILD STEEL 11" STAINLESS

AUTOMATIC FEED SYSTEMS

MODEL	LENGTH OF FEED STROKE	MULTIPLE INDEX	DESIGN MAXIMUM	ECONOMIC MAXIMUM	OPTIMUM CAPABILITY
500	0-11½" or 0-24"	NA	9" x 6"	5" x 10"	3" x 20"
750	0-13½" or 0-24"	10 TIMES	10" x 10"	7" x 10	4" x 20"
1000	0-14" or 0-24"	10 TIMES	12¼" x 12"	7" x 12"	4" x 20"
1000AH	0-14" or 0-24"	10 TIMES	12¼" x 12"	9" x 12"	5" x 20"
1200 &	0-14" or 0-24"	10 TIMES	14" x 12"	10" x 20"	6" x 20"
1200LA	0-14" or 0-24"	10 TIMES	16" x 12"	12" x 20"	8" x 20"
1500	0-24"	10 TIMES	20" x 20"	15" x 20"	10" x 20"
1500LA	0-24"	10 TIMES	24" x 20"	15" x 20"	10" x 20"
2000	POWERED ROLLER	NONE	40" x 40"	23" x 20"	15" x 20"

Round bar stock is used in these ratings.

FEED RATING SYSTEM

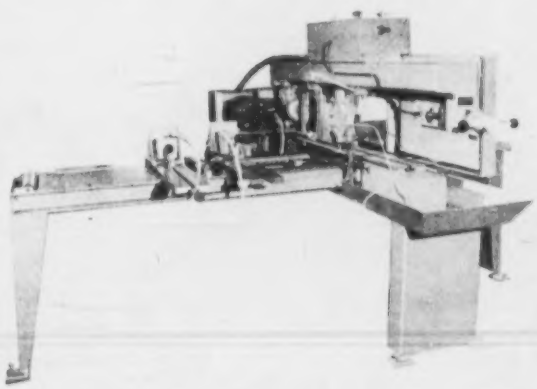
In general, the rating numbers are a conservative guideline. Many factors affect the band sawing operations. For example, if a very skilled operator were to control the machine, he might, even under ideal conditions, vary from the "Optimum Capability" closer to the "Design Maximum". Generally, you will want to select the saw and feed which will be the most productive for your application.

DESIGN MAXIMUM is the largest size which the feed system is designed to support, and is as large as will fit into the saw. However since large bars are frequently not straight and cause concentration of weight at one point, this is not a practical size for frequent use.

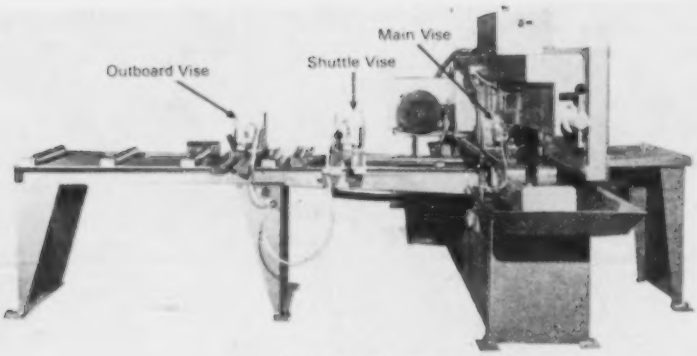
ECONOMIC MAXIMUM is the largest size which the machine will handle easily.

OPTIMUM is the size material which can be fed easily without regard to surface condition or straightness.

As an analogy, if you have a half-ton truck at its Design Maximum it can carry 4000 pounds or more; at its Economic Maximum it may carry 2000 pounds; and at its Optimum Capacity it will carry 1000 pounds. Overloaded vehicles, like saws, start hard and stop poorly.



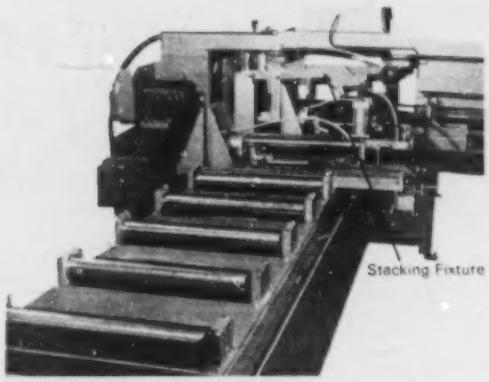
750 A - FEED 14" STROKE



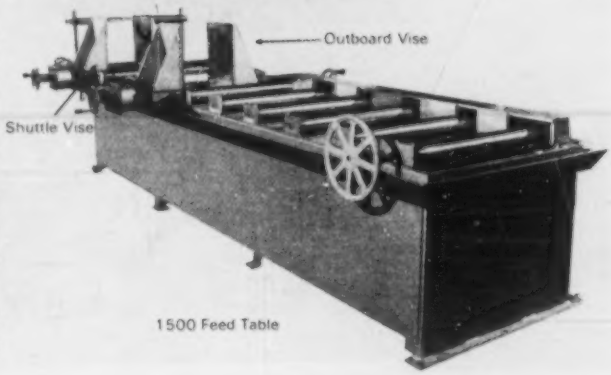
1000A - Feed 24" Stroke

HOW AUTOMATIC FEED SYSTEMS WORK

An automatic feed unit has several immediate problems to deal with. It must position the stock accurately so that the piece is cut to the desired length, even though the bar is constantly changing in weight, and also may be crooked. It must be capable of repeating over a long period of time. We think we have developed some very sensible ways to deal with these feed problems.



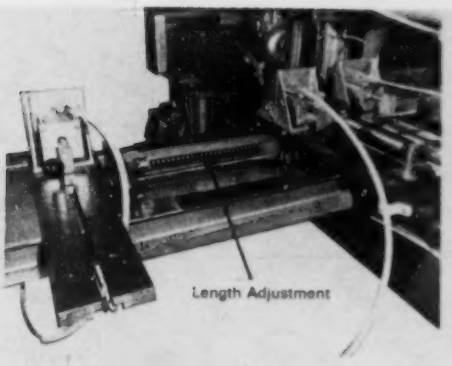
All our feed systems employ a patented floating movable vise running between fixed stops. Since there is no drag on the shuttle vise, it runs back and forth freely even with crooked stock. The stock does not drag against the saw, the feed table or the main vise, causing gouging and wear. And there are no varying friction loads, which could cause inaccurate cutting. The system includes a speed control, a microswitch delay and a cushion before the end of the stroke, allowing the stroke to end softly and the work to settle in before the material is clamped and cut. The feed vise pulls down slightly, keeping the material from riding up after successive cuts. And the clamp and feed cycles overlap, allowing you to gang stack bars and flats without welding the ends. All wear points are easily replacable, providing for many years of profitable service.



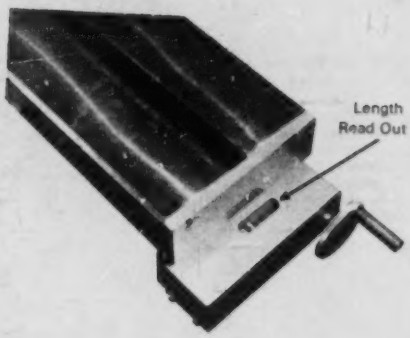
1500 Feed Table

AUTOMATIC FEED SYSTEMS

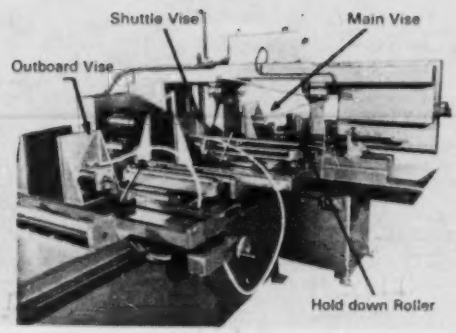
The simple-to-set manual adjustment for cut piece length provides great accuracy at a remarkably low price on Models 500A, 750A and 1000A.



On Models 1000AH, 1200A, 1200LA, and 1500, the operator can simply turn the handle to set the cut piece length. The digital read-out dial tells him the exact length in thousandths. This provides for incredibly rapid operation and high levels of productivity.

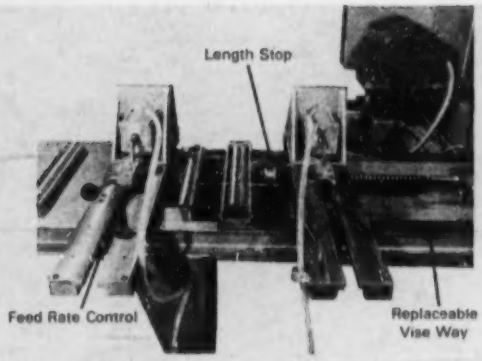


The HE&M Feed Systems also feature an outboard holding vise in addition to the main vise and the shuttle vise. The outboard vise operates simultaneously with the main vise to square long bars in the machine and to permit the use of a pusher bar so that short end pieces of stock can be cut automatically. The standard Hold-down Roller prevents stock from riding up and permits clamping of multiple pieces.

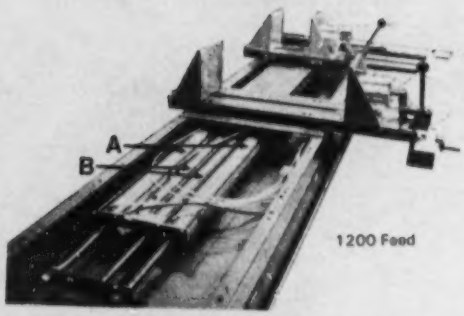


AUTOMATIC FEED SYSTEMS

Each feed system is designed to operate most efficiently at the corresponding saw's optimum cutting size. Here is a feed for one of the smaller saws, showing the feed rate control and cylinder and stops. Note the replaceable vise ways for the shuttle vise.



This is the feed system for one of the larger saws, partially assembled. Note the use of dual driving (a) and dual cushion (b) cylinders, to provide sure and accurate control of even very heavy stock. Feeding accuracy is assured.



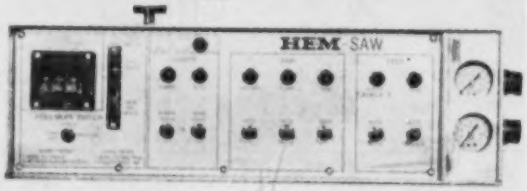
1200 Feed

If you have a special requirement for a feed system let HE&M solve your problem. Our versatility in design techniques makes HE&M a leader in innovative design.

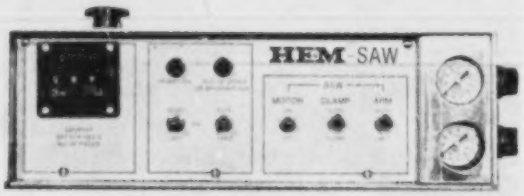
1200L w/powered idle table.

EFFICIENT CONTROLS EARN MORE PROFITS

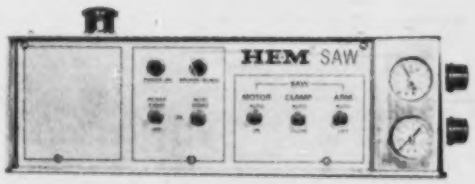
The All-Function Control is the ultimate, and can be used in any mode: Manual, Semi-Automatic, Fully Automatic, and Multiple Indexing for longer lengths. It is a true materials handling system. Standard on Models 1000AH, 1200A and 1200LA. Optional on all other models.



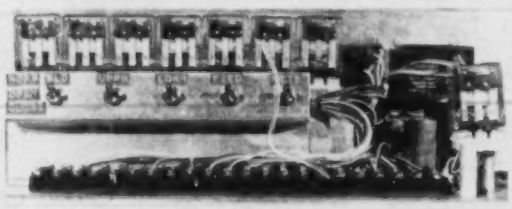
The Bi-Function Control Console provides control of both Saw and Feed System from one convenient location, giving either automatic or manual control as required. Available on Models 500A, 750A and 1000A, not on 1200 Models.



For saws purchased without a feed system, the semi-automatic Control Console gives full control of all sawing operations. It is designed for maximum operator efficiency and safety. A feed system may be installed later should your needs or circumstances change.



If a problem should arise in the electrical system a built-in diagnostic panel is provided in the back of the control console. It allows you to pinpoint your electrical problem with a minimum of down time. This package is standard only on the all function control.



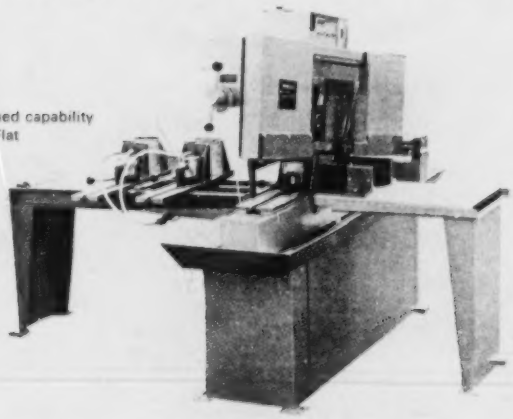
WHY BUY A HE&M SAW?

Efficiency, dependability, quality workmanship and profitability are all good reasons to purchase a HE&M Saw. We at HE&M, care about our customers and want them to have the best product at a fair price; we want customers to make as much money as possible with our product, and we want our customers to know that our saws are backed by the best possible service. These are the reasons why you should buy a HE&M Saw.

MODEL 500

This is the smallest of the HE&M Saws, yet it is built to a standard of quality which most makers reserve for their most expensive models.

Maximum designed capability
9" Round, 9½" Flat



Shipping Weight: Manual 800 lbs.
Automatic 1200 lbs.

Motor: 1 H.P., 110V Single Phase

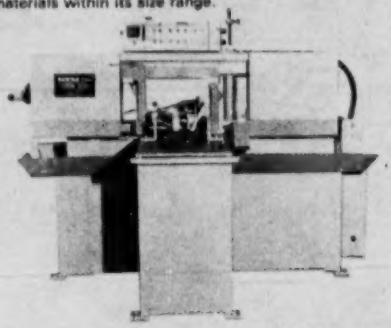
Blade Size: ½" x 9' x .025 thick

50-112 O—85——2

MODEL 750

An intermediate capacity saw, this is a very heavy duty model, achieving extremely high production rates on materials within its size range.

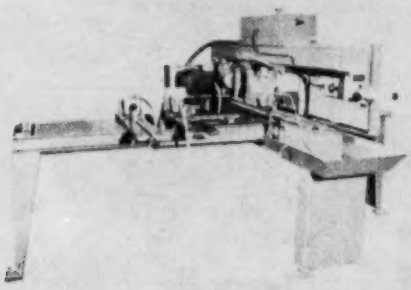
Maximum designed capability
10" Round, 12"Flat



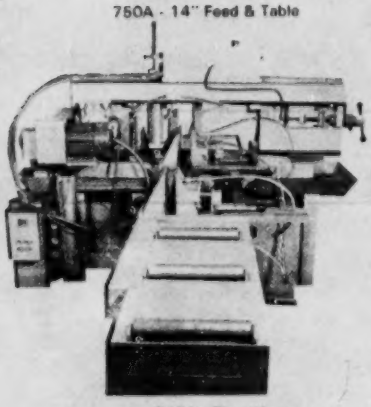
Motor: 2 H.P., 220/440 VAC, 3 Phase
Ball bearing TEFC

Shipping Weight: Manual 1100 lbs.
Automatic 1600 lbs.

Blade Size: ¾" x 11" x .035 thick.



750A - 14" Feed & Table



750A - Rear View

MODEL 1000A

Here is a larger saw for those who cut larger stock. Although not our biggest machine, it will out perform many saws which claim much larger capacities.

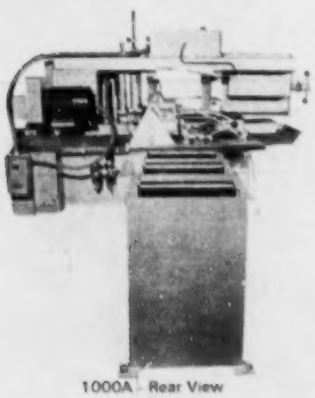
Maximum designed capability
12¾" Round, 12¾" Flat

Motor: 3 H.P., 220/440 VAC, 3 Phase, Ball Bearing TEFC

Shipping Weight: Manual 1800 lbs
Automatic 3000 lbs

Blade Size: 1" x 12' 10" x .035 thick

1000A - Feed & Table



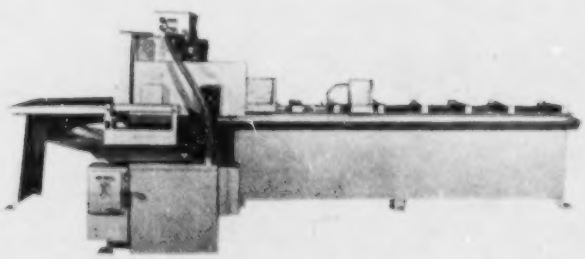
1000A - Rear View

MODEL 1000AH

Maximum designed capability
12¼" Round, 12¼" Flat

Motor: 3 H.P., 220/440 VAC, 3 Phase, ball bearing TEFC.

Shipping Weight: Automatic 3000 lbs. **Blade Size:** 1" x 12' 10" x .035 thick



1000AH - Feed & Table

These additional features are standard on Model 1000AH.

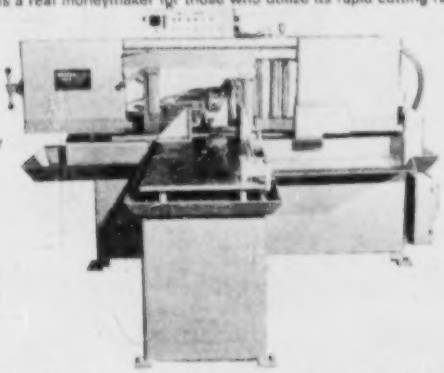
- All function control
- Digital readout
- Twin push cylinder
- Larger table capacities
- Heavier tables
- Larger selection of tables
- Larger feed table capacity

1000AH - Rear View

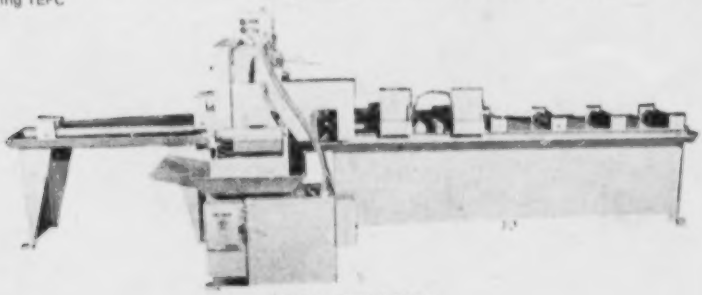
MODEL 1200A

Our most popular saw. The 1200 series is able to cut extremely large sections both accurately and economically. It is a real moneymaker for those who utilize its rapid cutting rates.

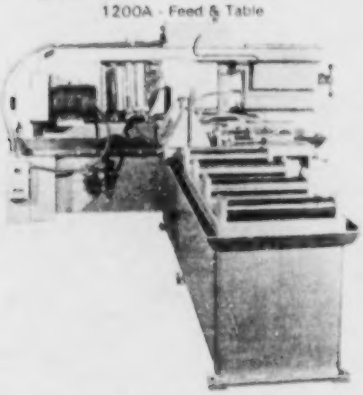
Maximum designed capability
14" Round, 16" Flat



Motor: 5 H.P., 220/440 VAC, 3 Phase, Ball Bearing TEFC **Shipping Weight:** Automatic 4600 lbs. **Blade Size:** 1¼" x 15' x .042 thick



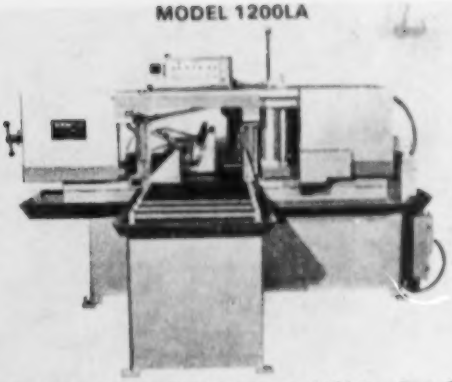
1200A - Feed & Table



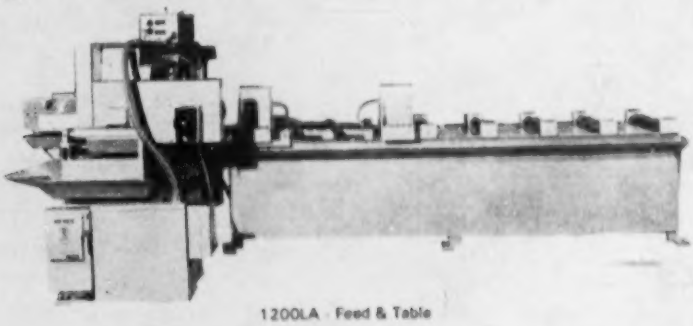
1200A - Rear View

MODEL 1200LA

Maximum designed capability
16" Round, 20" Flat



Motor: 5 H.P., 220/440 VAC, 3 Phase **Shipping Weight:** Automatic 5000 lbs. **Blade Size:** 1¼" x 15' 8" x .042 thick
Ball Bearing TEFC



1200LA - Feed & Table

These additional features are standard on Model 1200LA

- Standard roller base
- Will accept powered handling systems
- Jog control
- Rollers forward and aft of shuttle vise
- Two-inch higher cutting capacity
- Four-inch larger flat capacity
- Larger feed table capacity

1200LA - Rear View

MODEL 1250RB

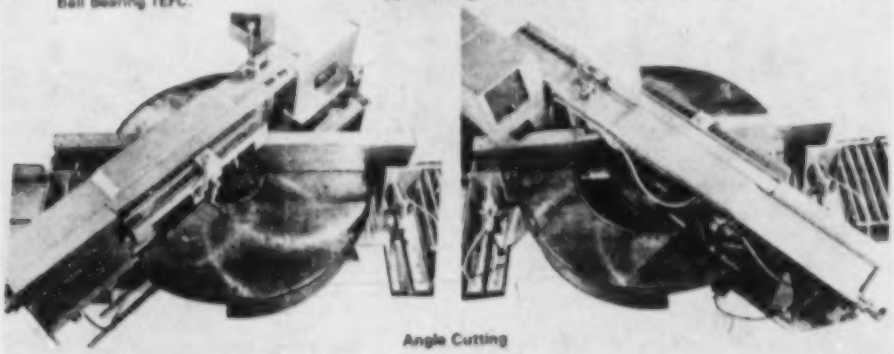
The 1250 RB is the latest addition to our 1200 Series. It allows you to cut an angle and gives you an accurate cut so important to miter work.

Maximum designed capability
16" Round, 20" Flat
at 90° cut, and
9" Round, 12" Flat
at 45° cut.

Motor: 5 H.P. 220/440 VAC, 3 Phase. Ball Bearing TEFC.

Approx. Weight: 8,500 lbs.

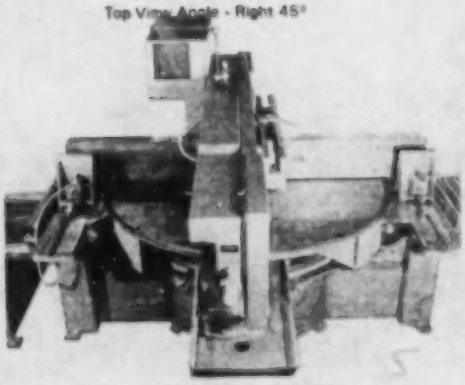
Blade: 17' 3" x 1¼" x .042 thick.



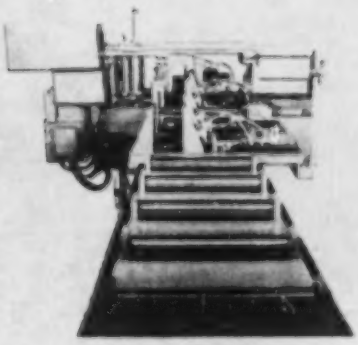
Angle Cutting

Top View Angle - Right 45°

Top View Angle - Left 45°



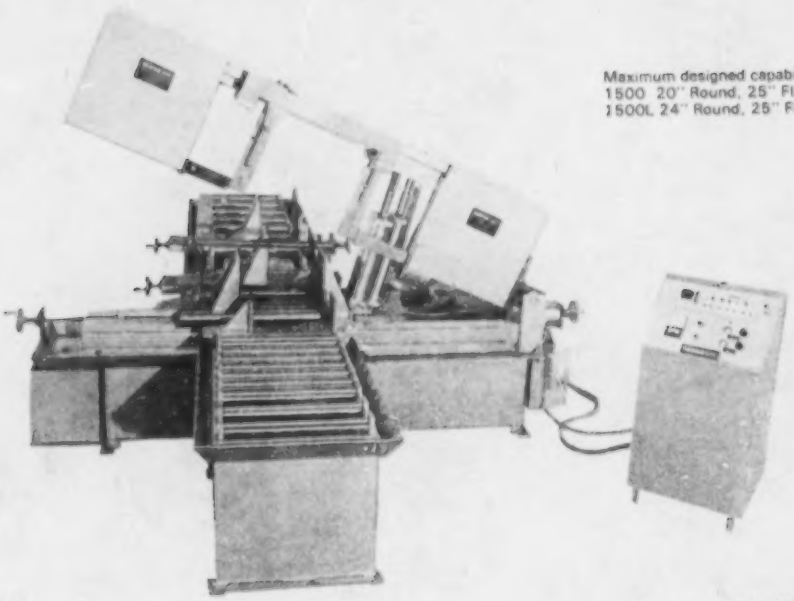
Side View - Straight Cut



Rear View w/vises and feed.

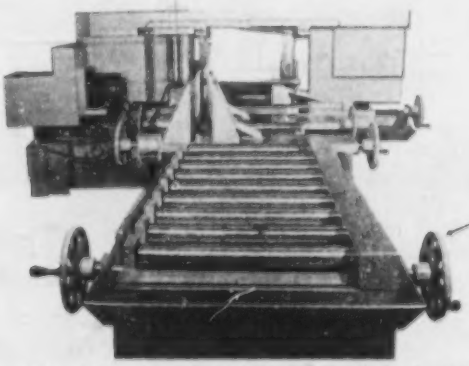
MODEL 1500A

Our largest standard saw, larger model available on special order. The 1500 is a precision machine tool and its performance is simply amazing.



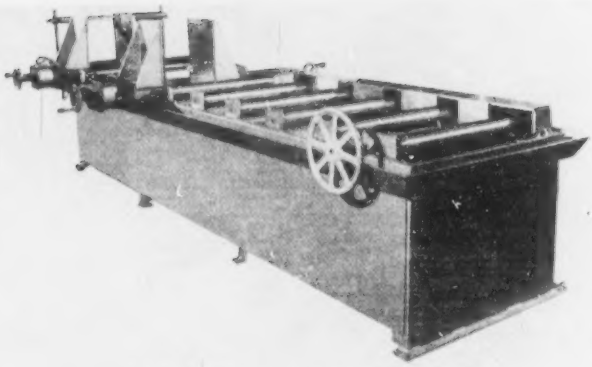
Maximum designed capability
1500 20" Round, 25" Flat
1500L 24" Round, 25" Flat

Motor: 10 H.P., 220/440 VAC, 3 Phase. **Shipping Weight:** Automatic 12,500 lbs. **Blade Size:** MODEL 1500 1½" x 20' 6" x .050 thick. MODEL 1500L 1½" x 21' 6" x .050 thick.
Ball Bearing TEFC

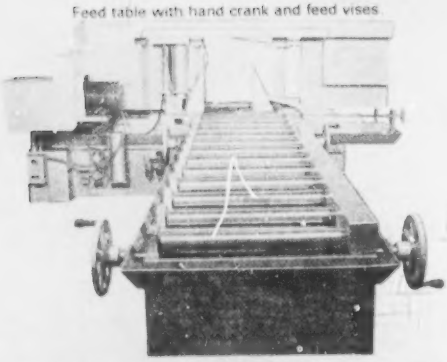


Hand Powered Rollers For Material Positioning

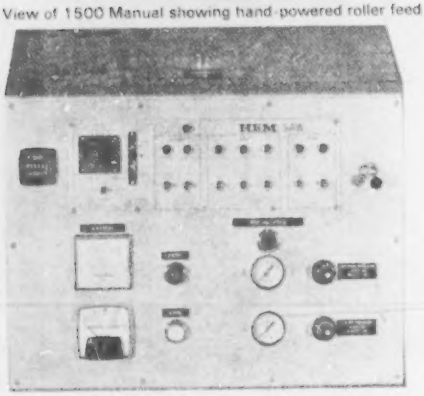
Rear View of 1500A with vises and hand-powered roller feed table.



Feed table with hand crank and feed vises



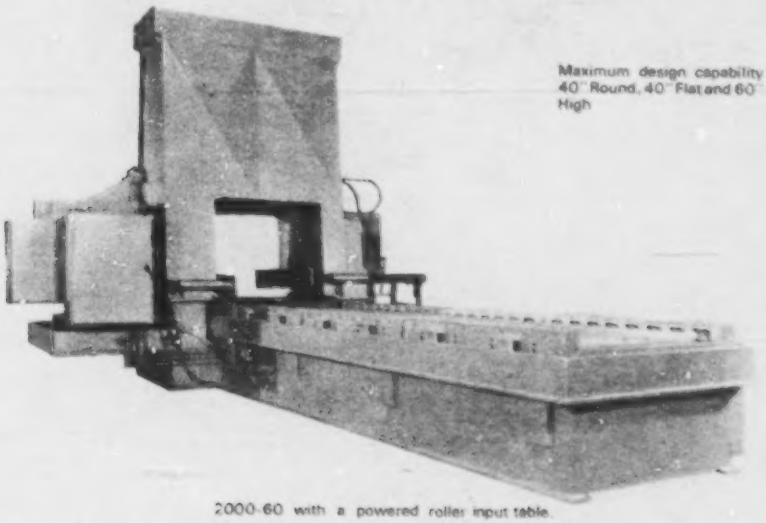
Rear View of 1500 Manual showing hand-powered roller feed table



1500 Remote All Function Console

MODEL 2000

The 2000 series is the largest saw HE&M makes. Because of its unique size, the 2000 is a special order saw.



Maximum design capability 40" Round, 40" Flat and 60" High

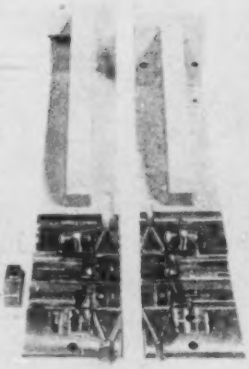
2000-60 with a powered roller input table.

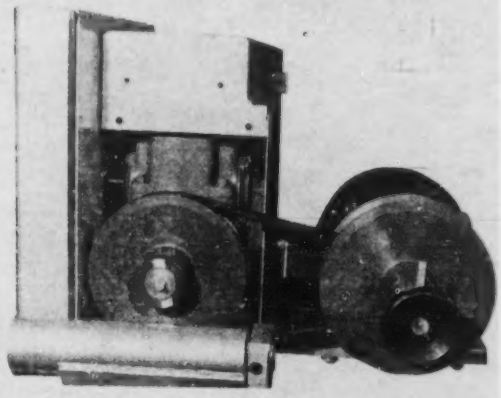
Maximum design capability 40" Round, 40" Flat

2000-40 with a Model 500 saw on discharge table.

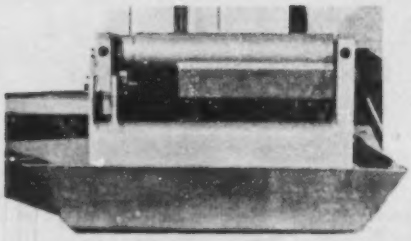
PROFIT BUILDING FEATURES OF HE&M SAWS

Welded steel guide arms and flat carbide blade guides which squeeze the blade hold it absolutely vertical for the straightest cuts in the business. Coolant channels are milled into the blade guides themselves. You get less waste, lower finishing costs, greater profits.

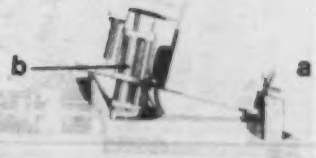




The Variable Speed Drive permits selection of the optimum blade speed for maximum cutting rates and lowest blade cost. Totally enclosed worm gear drive provides trouble-free service.



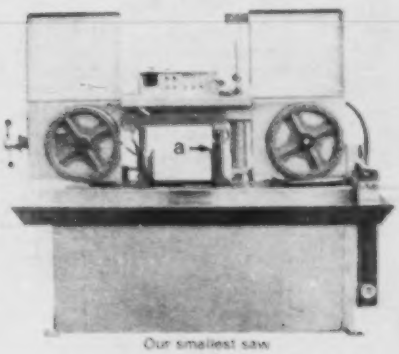
The Pivot Pin is massive and runs in pre-loaded bearings. This avoids any play in the arm.



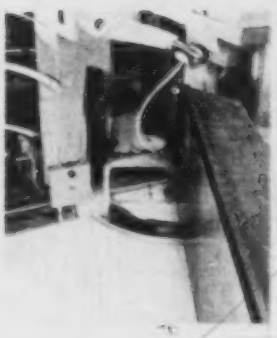
The Pivot Pin (a) is located above and away from the work, while the lifting cylinder (b) is located close to the work. The result? Straight cuts under the most difficult conditions, because the angle that the saw arm moves through is very small; therefore the guides are closer to the cut.

Movable manual stop (a) for "one shot" cutting, adjustable discharge chutes and coolant return system (b). Each is carefully designed to maximize operator efficiency and thus increase your profits. The Blade Guide Adjustment Crank shown here is available on the 1200 and 1500 models.

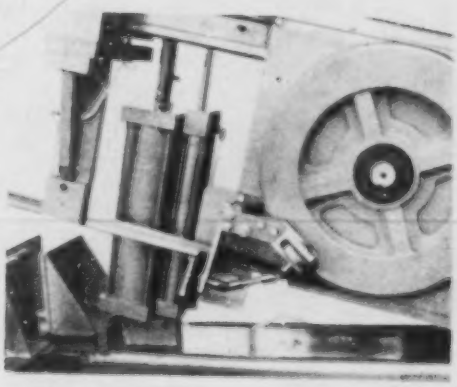
Adequate mass and rigidity of the arm is essential to prevent vibration and flexing and to handle the power of the saw. The hydropneumatic control system (a) controls lift, feed rate and cutting pressure with total accuracy. You get straight cuts and MUCH longer blade life.



Our smallest saw



Coolant is pumped through the blade guides on both sides of the blade. This cleans and cools the blade evenly to prevent uneven wear and crooked cuts.

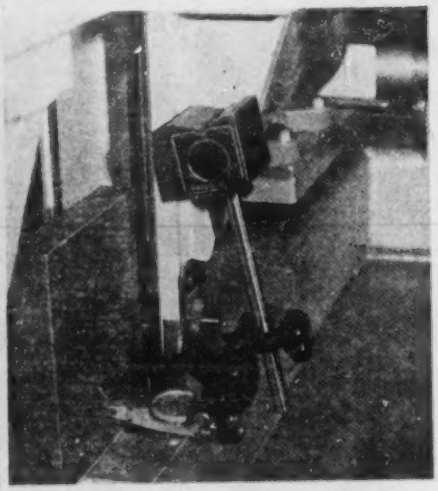


The Blade-Cleaning Brush supplied on some models is power driven for thorough cleaning of the blade. This prevents chips from re-entering the work and causing crooked cuts.

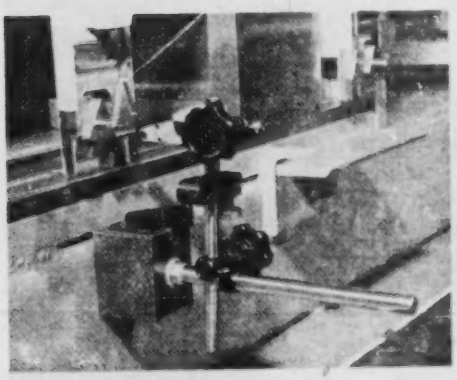
ALIGNMENT FOR STRAIGHT CUTS

Every saw that we manufacture goes through an alignment process. Doing this makes our saw "the saw that cuts straight."

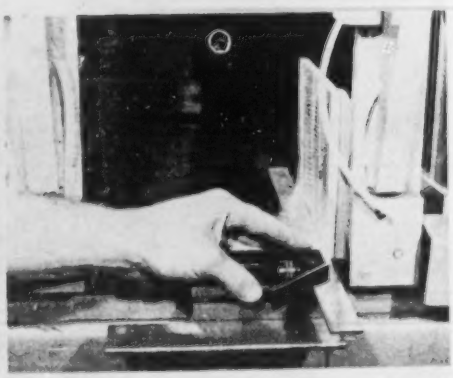
Setting the carbides in the same plane insures that as you open and close the guides you maintain squareness to the vise.



We use a tool maker's angle plate and test indicator to verify that the saw arm travel is perpendicular to the vise base within .001 per inch.



Setting the blade vertical to .001 of an inch assures you of a balanced and straight cut.



Alignment of the vise to perpendicular of the blade travel makes a square cut.

H&M Saws are manufactured under the following patents: 3504585, 3682030, 3848493. Other patents pending 4117756, 936015.

WHAT ABOUT SERVICE?

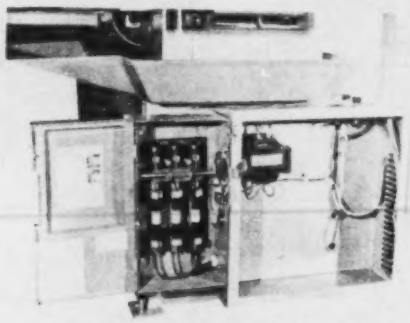
FACTORY TRAINED SERVICE PERSONNEL AVAILABLE

Any machine which isn't working is *less than useless*, it's a *real negative force*, disrupting schedules, distracting people from their normal work, causing endless problems. There is *no profit* in an inoperative machine. In fact, one machine out of service can cause others to loose money because they also must stand idle.

All HE&M Saws are designed to give you the most profits over the longest possible period of time. It's done by quality of design and construction, by keeping maintenance requirements to a minimum, by keeping any parts which might require service in an accessible place, and by being sure that spare parts are readily available.

We have designed HE&M Saws with "off the shelf" parts wherever possible. Since we supply you with manufacturer's parts numbers, you can get many parts from your local bearing supply house, almost instantly and at a lower cost. **We aren't in business to sell replacement parts.** We'd prefer to sell you your second and third HE&M Saws as you continue to grow, as we have to many companies. Remember, too since we're right here in the United States, any parts you might need can be at your door within 48 hours—just telephone us if necessary.

We are also ready and able to provide factory advice and service in the event that it is needed. You don't need to worry about any language barrier or non-standard nomenclature. We're here, we understand your language and your problems. And we can provide answers and solutions—NOW!



You don't have to stand on your head to service a HE&M Saw.

Your local supply house carries most of the parts you'll ever need. The people who stock *these* parts stock our spares. We don't change the number.

January 16, 1979

Mr. Leonard R. Harris
Harris, Inc. 1148
P.O. Box 1148
Pryor, OK 74361

Dear Lenny:

You asked how our new saw is working out. I'm happy to report that it is doing an even better job than I expected. As you know, we decided to buy a new saw because our older one was constantly out of adjustment and made poor cuts, causing our lathe operator to slow down to keep off scrap. The new saw installed this week is performing to a maximum of precision.

Several of my friends - we're now using the new saw as a standard for our shop - have asked about the saw, and I have found that we can actually make a profit selling time on it. We have found that we can cut material anywhere within the capacity of the saw in about one-fifth the time it took on our old saw. Even though we charge a premium for our precision, we are extremely close to the accuracy of our competitors' machines, with considerably less time to set up. Our operator can set up a new job in about 4 minutes, and we have had jobs run with this saw that are so close that no secondary operation is required. It has become more than a "necessary evil" - now it's a money maker.

There are two things that really impress me. First, the accuracy of the cutting is just excellent. We are getting parts that are extremely close to length, and straight cuts that require no secondary operation. Second, the reliability is great. We have had less down time with this saw than with any of the other machine tools. I appreciate this because our machine shop runs two shifts and the time is at a premium. We also have the cost of several unproductive man hours. It's a small factor, but it adds up.

I should add that I've also been pleased with the blade usage rate. We have cut over 10,000 square feet of material with one blade, and we are getting about 4,000 square feet per blade. That's no small factor.

To sum it up, we are very pleased with the new saw. As a matter of fact, it has been a real money maker. I may consider adding another HEM saw within the next few months.

Sincerely yours,

[redacted]

WOULD YOU MIND SAVING 10¢ PER CUT?

One of our customers, a production specialist in San Carlos, California, didn't mind! In fact they liked the idea so well that we'll tell you their story. This shop had an operator who was responsible for operating a lathe and running a cut-off saw in a repetitive run. About half his time was spent keeping the saw running. Prior to our installation, he produced 75 parts per day. *Following automation he produced 150 parts per day, PLUS his output on the lathe increased dramatically.* In addition, the saw output was more accurate, reducing later processing costs, and the rate of rejects on his work decreased.

Disregarding the changes in lathe output, the direct labor costs (at an hourly rate of $5.50) on the saw dropped from 27.9¢ per cut to less than 5¢ per cut, *a saving—NOT OF 10¢—BUT OF OVER 20¢!*

"BUT AUTOMATION COSTS MONEY!" you say. Of course it does. We're the first to agree. Based on half a million cuts, the machine costs would be less than A PENNY AND A QUARTER PER CUT! *That's money—but it's not very much money. If you saved 10¢ per cut at a cost of 1¼¢ per cut, after a half-million cuts you would have saved a net of $43,750.00.*

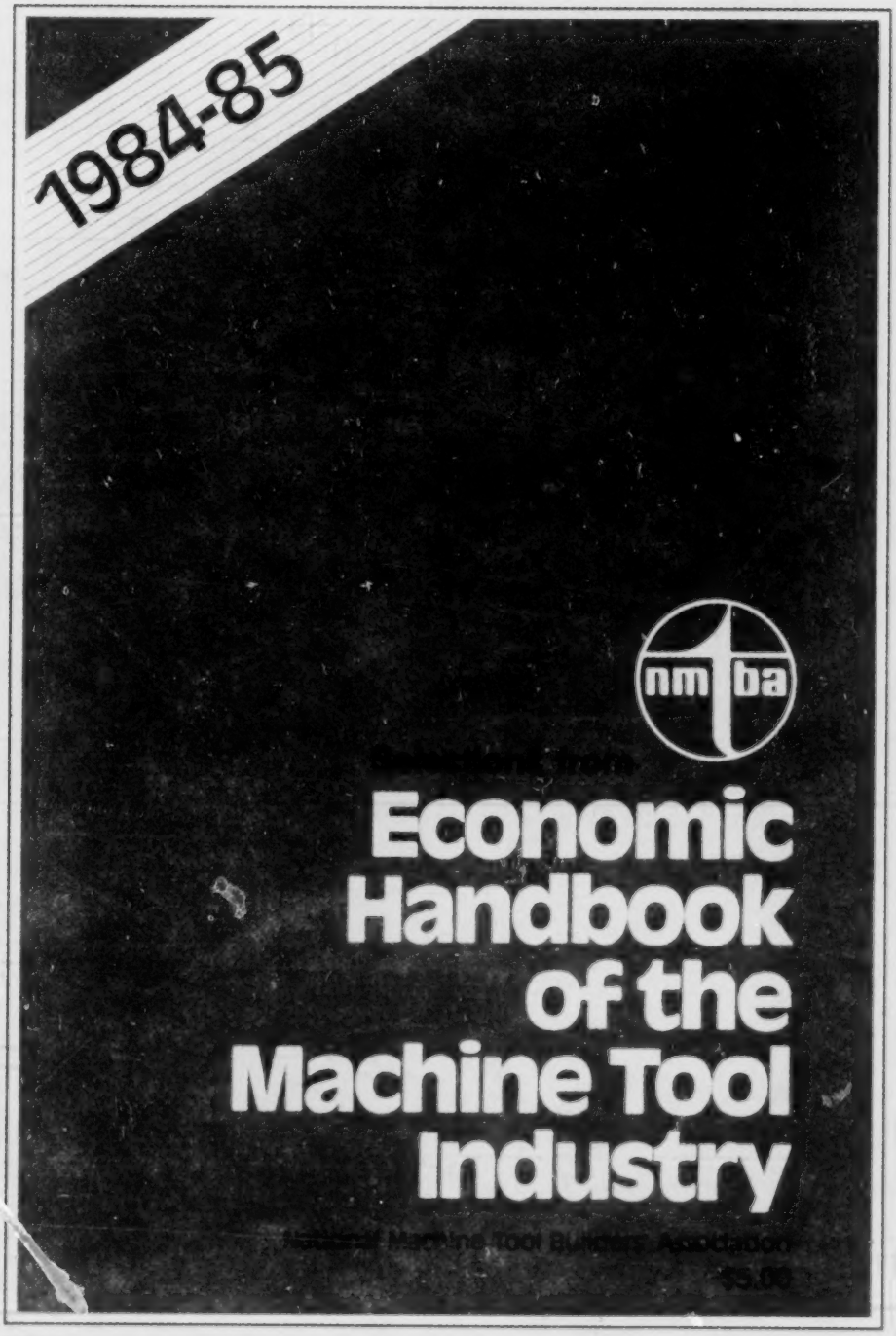
"SOUNDS TOO GOOD TO BE TRUE," you say? Well, maybe so. But we'd like nothing better than to let you try one of our saw systems—or to send you the names of shops using our saws and systems. What will you find out???

That you'll make more money per job by:

- *Reduced material handling.*
- *Less waste due to inaccurate cutting.*
- *Better service and scheduling—reduced reliance on outsiders with the resulting delays and high costs.*

SOMEONE IS MAKING MONEY ON YOUR CUTTING JOBS. SHOULDN'T IT BE YOU?

HEM INC. Mid-America Industrial District, P.O. Box 1148, Pryor, Oklahoma 74362, (918) 825-4821


1984-85
nmtba
Economic Handbook of the Machine Tool Industry

A World of Productive Ideas

INTERNATIONAL MACHINE TOOL SHOW

The International Machine Tool Show is an international exchange of ideas for greater productivity and efficiency. Held in Chicago during September of every even numbered year, IMTS features every type of equipment and accessory, from sophisticated computer and numerical controlled systems to standard shop equipment.

Most of all, IMTS is the best opportunity for metalworking people to stay abreast of the latest developments in the industry. If metalworking is your profession, IMTS is the most important trade show you can attend.

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Compiled by the Statistical Department

The form for ordering the complete "1984-85 Economic Handbook of Machine Tool Industry" can be found on the last page.

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(NMTBA Members $20.00)

FOREWORD

For the U.S. machine tool industry 1983 was a year in which market conditions, both in the U.S. and in major export markets, showed little improvement. In fact, when measured in terms of shipments, 1983 was a disastrous year. Deliveries of new machine tools totaled just $1.8 billion for the year, slightly more than half the level of the previous year and only about one-third the 1981 total. The only consolation for the industry was that order receipts for the year were up. But this was small consolation since the increase was a meager 13% over the extremely low level of 1982. When measured in constant, inflation-adjusted terms, 1983 was the worst order and shipment year experienced by the U.S. machine tool industry since the end of WWII.

Throughout 1983, while the economy as a whole experienced robust growth, the machine tool industry failed to share in the cyclical expansion. However, during the first six months of 1984, the market for machine tools appears to have begun to recover. New orders for the January–June period were 91% ahead of the comparable 1983 total. Shipments, reflecting the slow pace of orders in 1983, are presently only 7% ahead of their 1983 six-month total, but they appear to be gathering momentum. The fact that the industry has turned around is a positive sign, as are recent surveys that indicate that manufacturers plan to boost their capital spending appreciably during the remainder of 1984 and into 1985.

However, while these signs are encouraging, they hardly signal a return to prosperity for the industry. Machine tool builders as a group lost money during 1983 and are presently still in a state of financial crisis due to the modest recovery in shipments. Getting through the current cash-flow crisis is the industry's immediate concern. Though we are headed in the right direction, 1984 is proving to be another very tough year for the machine tool industry.

A factor complicating the prospects for recovery in the domestic machine tool industry is the spectre of further import inroads into the American machine tool market. Imports comprised over 35% of the machine tools installed in the U.S. in 1983 and have shown every sign of maintaining or increasing this market share as the recovery unfolds.

It is because of the threat of import dominance in the machine tool market, the industrial backbone of American manufacturing and America's defense industries, that the NMTBA filed a petition for import relief with the Secretary of Commerce under Section 232 of the Trade Act of 1962, the National Security Clause. While the Association has long been a proponent of free trade and has one of the most active international trade promotion efforts in the trade association field, we cannot stand idly by while key segments of the American machine tool industry are decimated by targeted sales of foreign machine tools. Frequently assisted by subsidies and a variety of preferential programs sponsored by their respective governments, foreign builders have come to dominate certain key sectors of the domestic machine tool market, a fact we find inconsistent with our vital national interests. America is

the defender of the industrial West and machine tools are the foundation of our industrial defense preparedness. We cannot allow the nation's defense to be eroded by a loss of our ability too produce, within our boundaries, the machine tools that are needed to maintain our national defense posture, i.e. our ability to produce sophisticated state-of-the-art weapons systems and our ability to deter aggression by our adversaries.

The significance of the threat of machine tool imports goes far beyond the welfare of just the domestic machine tool building industry. If the industry is allowed to be overwhelmed by foreign products, the innovations and new manufacturing process technology that it provides America's manufacturing industries will be lost. Foreign firms will then have the upper hand in the development of new technology and will be the leaders in the drive to more efficient, lower-cost production of manufactured goods. The loss of America's machine tool building capability could well signal the beginning of the decline for all of America's metalworking manufacturing industries.

The Commerce Department fulfilled its statutory obligations by making a recommendation for action on the petition that was submitted to the President in February 1984. The fate of the industry's future then rested squarely in the Oval Office. Despite overwhelming support from Congress for a favorable ruling, the President had not acted by the time of publication of this edition of the Handbook.

As we look beyond our current situation into the next decade and beyond, we feel that the machine tool industry will be called upon to play an even more vital role in America's industrial structure. Since the turn of the century, and especially in the post-World War II era, the United States has undergone a dramatic shift in its economy away from agriculture and manufacturing toward service industries. This has placed a responsibility on each farmer to produce more food to feed our expanding population and has placed an equivalent burden on each industrial employee to produce an ever larger volume of manufactured goods for each member of our society.

Just as mechanization was the answer to the problem of farm productivity, new and better capital equipment is the answer to the problem of industrial productivity. The machine tool industry looks forward to the technological challenge of obtaining more output from each manufacturing worker as it continues to provide its customers the world's most reliable, most productive machine tools.

The 16th edition of the Economic Handbook again offers industry executives, market researchers, legislators, administrators and students an expanded collection of data on the economy and the machine tool industry.

Wide fluctuations in currencies and varied definitions of different time periods account for occasional differences in the data for what appear to be identical subjects in this Handbook. As much as possible, these differences are explained in the chapter introductions, footnotes and the "Explanation of Terms" section at the end of the Handbook. Special explanatory notes for selected data series are also included. The NMTBA Statistical Department is also available to answer any questions concerning this publication. We are constantly trying to improve the value of this book. Your comments and suggestions for future editions are welcome.

James A. Gray
President

August 15, 1984

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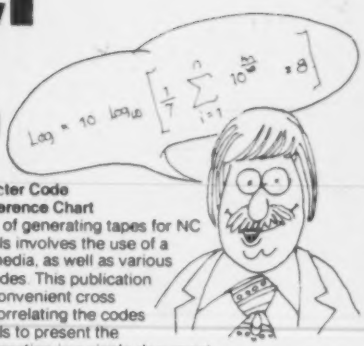
TECHNICALLY SPEAKING...



NMTBA offers a series of nine technical publications that contain suggestions, guidelines and information to make your company's operation more efficient and productive.

1 Guidelines for the Measurement of Machine Tool Utilization
This publication suggests a uniform procedure for the measurement and reporting of machine tool utilization. It provides a system to measure the effectiveness of a wide variety of machines and their related resources. It establishes indices of production, availability, utilization and consistent methods for their evaluation.

2 Noise Measurement Techniques
This publication suggests the most recent measuring techniques and procedures for the determination of machine tool sound. A discussion of time-weighted average sound levels is included, as well as a discussion of the disagreement between OSHA and EPA as to the basis for computing noise dosage.

3 Definition and Evaluation of Accuracy and Repeatability of NC Machine Tools
This publication was prepared to help develop a better understanding of the accuracy and repeatability of numerically controlled machine tools. Definitions, methods of computation and testing procedures are thoroughly discussed. This paper is recognized in the COCOM (Coordinating Committee) Regulations which govern the export licensing of NC machine tools.

4 Common Words As They Relate to NC Software
The aim of this publication is to improve communication among those involved with NC computer software. It defines the common terms used throughout the industry including those regarding the preparation and use of computer software for numerically controlled machine tools.

5 NC Character Code Cross Reference Chart
The process of generating tapes for NC machine tools involves the use of a number of media, as well as various character codes. This publication provides a convenient cross reference, correlating the codes and standards to present the needed information in a single document.

6 Standards Index
A bibliography of standards pertinent to the design, manufacture, sale and use of machine tools.

7 Selecting an Appropriate NC Programming Method
Selecting the best NC programming method for a particular set of manufacturing circumstances is an important decision for new and established NC shops alike. The implications of this decision are manifold and an incorrect decision can adversely affect the expected return on high cost capital equipment. This publication explains the elements of manual and computer-aided programming and will help you in selecting the right method for your shop.

8 NC is EZ
This publication is intended as a practical and easy to understand NC primer. It will help prospective first-time NC users plan and execute the installation and start-up of new equipment with a minimum of difficulty.

9 NC Part Programming Profile and Summary Report
This survey and summary report provides data useful to companies to compare their own NC programming efforts with other shops having a similar number of NC machines. It puts in proper perspective the NC programming effort required at shops considering acquisitions -- perhaps first-time -- of machine tools.

national machine tool builders association

1

NATIONAL ECONOMY AND MACHINE TOOLS

Man is a tool-making animal. Since the beginning of history man has used his tools to make even better tools. The culmination of these efforts are today's modern machine tools. These are the machines that form the basis of much of our modern civilization.

A machine tool is a power-driven machine, not hand held, that is used to cut, form, or shape metal. Few, if any, products and services of an industrialized country would exist were it not for machine tools. There would be no trains, no ships, no planes, no cars. There would be no power plants, no electric lights, no refrigerators, or other electrical appliances. And, without agricultural machines, without modern transportation, and without refrigeration—all dependent on modern machine tools—there would be no way to feed the more than 220 million people in this country.

Yet, such is the efficiency and longevity of the products of the machine tool industry that its present production has always represented only a small part of the nation's total output. The entire U.S. machine tool industry is smaller than many individual corporations. Even the limited data available for the first years of this century show, for instance, that metalcutting machine tools made up only slightly more than 10 cents for every $100 produced in goods and services. In 1983, shipments of complete machine tools made up less than 6 cents of every $100 of Gross National Product.

Comparisons of machine tool consumption with capital expenditures by durable goods manufacturing industries show that machine tools make up a comparatively small but significant part of total expenditures for plant, machinery, and other equipment.

Machine tools are typically installed as capital equipment in metalworking industries. The data on machine tools installed in U.S. plants (see Chapter 9) and data collected by NMTBA indicate that the major users of machine tools are the metalworking industries: fabricated metal products, machinery, and transportation equipment (among the latter, primarily the automobile and aerospace industries). Thus, this chapter focuses on private investment, on expenditures for new plant and equipment, and on the orders and shipments of the metalworking industries. Business activity in these industries is likely to affect their capital expenditures and, in turn, to affect the orders that flow to the machine tool industry. However, many other factors also seem to affect the ordering of new machine tools.

The machine tool industry is highly sensitive to the treatment of corporate capital consumption allowances such as investment tax credits and depreciation. Changes in these affect the willingness and ability of the industry's customers to make machine tool purchases. The work of many students of the machine tool industry has indicated that corporate profitability, financial conditions, and the general level of business confidence are also important determinants of machine tool order activity.

Capacity utilization is recognized as another significant determinant of future business investment in plant equipment and thus in machine tools. While attempts to measure the utilization in a broad spectrum of industries are fairly recent, there are several existing series on capacity utilization in manufacturing. In this issue, three of the available measures are presented. Also included are capacity utilization series for selected machine tool consuming industries as published by the Bureau of Economic Analysis and the McGraw-Hill Publications Company.

Currently, there is much concern in the United States about the erosion of our capital stock. For instance, studies have shown that the average age of the machine tool population in this country has gone up significantly in recent years. Investment apparently has not kept up with the need to replace aging capital assets in U.S. metalworking industries. Several tables showing the stock of capital assets in various machine tool consuming industries are in this chapter. Of particular interest are the tables relating purchases and depreciation of capital goods in manufacturing industries, and the tables of business capital appropriations in current and constant dollars.

Many figures shown in this chapter are in current dollars . . . dollars not adjusted for changes in purchasing power. Overall changes in the purchasing power of the dollar, as measured by producer or consumer prices indexes, provide a measure of the erosion of its value. To measure the impact of price increases, several indexes and "price deflators" to generate "constant dollar" figures are available. These include indexes of producer prices for metal cutting and metal forming machine tools. However, because these indexes are limited in their ability to make adjustments for changes in the qualitative characteristics of machine tools, they should be used with caution.

U.S. machine tool builders have traditionally been active exporters of their products. Until 1978, the U.S. machine tool balance of trade had continuously been positive and had helped offset trade deficits incurred in other sectors. However, a surge in imports in the late 1970's, sparked by unprecedented peacetime machine tool demand, led to the development of a sizable balance of trade deficit. What is troubling is that the competitive impact of machine tool imports is understated in current statistics. The value data for imports exclude important cost elements such as insurance and ocean freight which also affect the balance of payments. These shortcomings of the foreign trade statistics are discussed in Chapter 5, as are other detailed aspects of machine tool foreign trade.

To protect and expand foreign markets many U.S. businesses have established plants in foreign countries. Direct foreign investment increased rapidly during the

1960's and 1970's and U.S. machine tool builders joined this move. While no information is available on machine tool direct foreign investment, data are presented for U.S. direct foreign investments in various countries by all industries and by manufacturing industries.

Definitions and discussions of the terms used in this and other chapters are in the glossary at the end of this book.

GROSS NATIONAL PRODUCT AND PRIVATE INVESTMENT
1959 to Date
(Values in Billions of Current Dollars)

Year	Gross National Product Billion $	Gross Private Fixed Nonresidential Domestic Investment			
		Total		Producers' Durable Equipment	
		Billion $	% of GNP	Billion $	% of GNP
1959	$ 487.9	$ 45.9	9.4%	$ 28.3	5.8%
1960	506.5	48.5	9.6	29.7	5.9
1961	524.6	48.0	9.1	28.9	5.5
1962	565.0	52.2	9.2	32.1	5.7
1963	596.7	54.8	9.2	34.4	5.8
1964	637.7	61.0	9.6	38.7	6.1
1965	691.1	72.7	10.5	45.8	6.6
1966	756.0	83.1	11.0	53.0	7.0
1967	799.6	83.9	10.5	53.7	6.7
1968	873.4	90.6	10.4	58.2	6.7
1969	994.0	101.3	10.2	64.6	6.5
1970	992.7	103.9	10.5	65.1	6.6
1971	1,077.6	107.9	10.0	67.4	6.3
1972	1,185.9	121.0	10.2	76.8	6.5
1973	1,326.4	143.3	10.8	92.3	7.0
1974	1,434.2	156.6	10.9	100.6	7.0
1975	1,549.2	157.7	10.2	102.3	6.6
1976	1,718.0	174.1	10.1	115.2	6.7
1977	1,918.3	205.2	10.7	140.8	7.3
1978	2,163.9	248.9	11.5	170.2	7.9
1979	2,417.8	290.2	12.0	191.9	7.9
1980(r)	2,631.7	308.8	11.7	197.9	7.5
1981(r)	2,954.1	352.2	11.9	218.8	7.4
1982(r)	3,073.0	348.3	11.3	206.4	6.7
1983(p)	3,310.5	348.4	10.5	217.2	6.6

p - Preliminary r - Revised

Sources: U.S. Department of Commerce, "Survey of Current Business" (monthly)

Gross private fixed nonresidential domestic investment includes capital expenditures by the domestic business sector for (1) new and replacement construction (e.g., buildings, stores, and warehouses) and (2) producers' durable equipment. Expenditures for producers' durable equipment include the new and replacement purchases of automobiles, trucks, various types of machinery, and other equipment used by the private sector in the production of goods and services.

U.S. BALANCE OF TRADE
1964 to Date

Year	All Merchandise Billions of Dollars			Machine Tools and Parts Millions of Dollars		
	Exports	Imports	Net Balance	Exports	Imports	Net Balance
1964	$ 25.5	$ 18.7	$ 6.8	$ 300.8	$ 45.6	$ 255.2
1965	26.5	21.5	5.0	287.2	68.9	218.3
1966	29.3	25.5	3.8	273.6	137.4	136.2
1967	30.7	26.9	3.8	294.5	203.7	90.8
1968	33.6	33.0	6	286.0	191.3	94.7
1969	36.4	35.8	6	323.5	182.5	140.9
1970	42.0	39.8	2.2	403.9	158.5	245.4
1971	42.8	45.5	-2.7	351.0	109.6	241.4
1972	48.8	55.8	-7.0	332.1	141.8	190.3
1973	71.4	70.4	1.0	443.0	211.6	231.4
1974	98.3	103.7	-5.4	566.5	330.3	236.2
1975	107.1	98.0	9.1	705.9	382.4	323.5
1976	114.4	123.4	-9.0	682.8	383.3	299.5
1977	119.7	150.2	-30.5	579.6	482.2	97.4
1978	140.9	174.5	-33.6	738.6	832.4	-93.7
1979	179.2	209.4	-30.2	878.6	1,269.5	-390.9
1980(r)	220.1	244.2	-24.1	1,099.2	1,556.9	-457.7
1981(r)	232.6	261.1	-28.5	1,445.6	1,712.9	-267.3
1982(r)	209.2	244.5	-35.3	1,002.4	1,489.4	-487.0
1983(p)	199.4	258.9	-59.5	691.9	1,100.2	-408.3

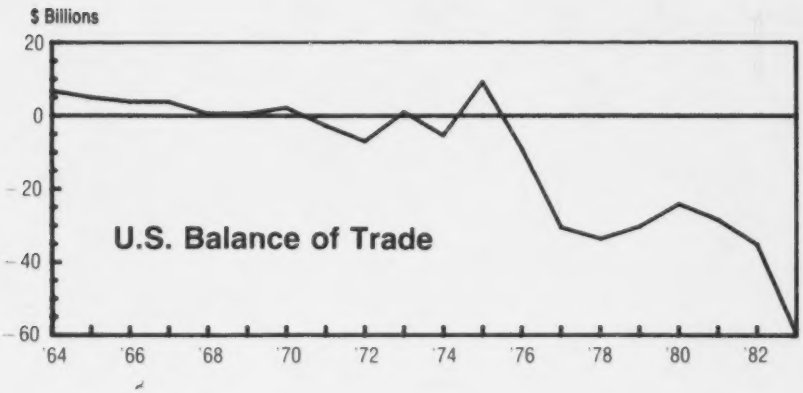
p - Preliminary. r - Revised.

Note: Machine tool export figures include used and rebuilt machine tools, machine tools designed for home workshops and laboratories, and some metal working machinery other than machine tools. Some attachments and accessories are included prior to 1972.

Individual items may not add to totals due to rounding.

Source: All merchandise: U.S. Department of Commerce, "Survey of Current Business," (monthly); Machine Tools: U.S. Bureau of the Census, "EM 522" and "IM 146."

For details on how the values in the above table are computed, see the text introduction to Chapter 5.



EXPENDITURES ON NEW PLANT AND EQUIPMENT
Major Industries, Selected Years, 1960 to Date
(Billions of Dollars)

Year	All Industries	Total Manufacturing Industries	Durable Goods Industries	Electrical Machinery and Equipment	Non-electrical Machinery	Motor Vehicles and Parts	Other Transportation Equipment
1960	$ 48.63	$ 16.36	$ 8.28	$ 1.02	$ 1.21	$ 1.48	$0.46
1965	70.44	25.41	13.49	1.68	2.24	3.00	0.74
1968	88.45	32.33	17.93	3.17	2.90	2.67	1.57
1969	99.53	36.27	19.97	3.27	3.63	2.99	1.81
1970	105.61	36.99	19.80	3.49	3.79	3.05	1.61
1971	108.52	33.60	16.78	3.04	3.15	2.42	1.13
1972	120.25	35.42	18.22	2.83	3.24	3.01	1.40
1973	137.69	42.37	22.74	3.50	3.97	3.83	1.83
1974	156.98	53.21	27.44	3.85	5.22	4.31	2.56
1975	157.71	54.92	26.33	3.14	4.96	3.35	2.57
1976	171.45	59.94	28.48	3.65	5.52	3.62	2.77
1977	198.08	69.23	34.05	4.68	6.59	5.83	3.22
1978	231.24	79.72	40.44	5.69	7.21	7.22	4.79
1979	270.45	96.68	51.07	7.28	10.52	8.31	7.01
1980	295.63	115.81	58.91	9.59	11.59	9.06	9.10
1981	321.49	126.79	61.84	10.31	13.22	10.08	8.31
1982	316.43	119.68	56.44	10.62	12.89	7.92	7.24
1983(r)	302.50	111.53	51.78	10.90	12.35	7.17	5.85
1984E	343.57	129.72	62.78	13.48	14.73	9.61	7.04

E - Estimate. r - Revised.

Sources: U.S. Department of Commerce, "Survey of Current Business," (monthly), Estimate, "Survey of Current Business," (March)

NEW PLANT AND EQUIPMENT PROJECTS
Starts During Year and Carry-Over at Year End, 1965 to Date
(Billions of Dollars)

	Total Manufacturing		Durables		Electrical Machinery		Nonelectrical Machinery		Transportation Equipment		Public Utilities	
Year	New Starts	Carry-over	New Starts	Carry-over	New Starts	Carry-over	New Starts	Carry-over	New Starts	Carry-over	New Starts	Carry-over
1965	$ 31.12	$20.02	$17.14	$11.00	$ 2.32	$1.64	$ 2.75	$1.04	$ 4.82	$ 3.07	$ 8.82	$ 7.67
1967	30.31	20.96	16.10	12.07	3.05	2.51	2.70	1.08	3.87	2.67	13.53	14.12
1968	33.81	22.44	18.43	12.57	2.91	2.26	2.81	.99	4.90	3.32	12.68	16.28
1969	39.80	25.97	21.65	14.25	4.59	3.56	3.82	1.18	4.86	3.38	14.85	19.43
1970	33.82	22.81	17.41	11.86	2.91	2.99	3.66	1.06	4.12	2.85	16.76	23.16
1971	31.78	20.99	15.86	10.93	2.35	2.31	2.96	.89	3.78	3.09	20.69	29.15
1972	38.97	24.54	19.30	12.01	2.63	2.10	3.39	1.04	4.74	3.42	29.77	42.65
1973	53.21	35.38	28.07	17.33	4.12	2.72	4.43	1.50	7.02	4.79	36.22	60.91
1974	61.24	43.41	31.07	21.59	3.55	2.42	6.20	2.47	7.11	5.03	47.72	88.79
1975	56.51	45.00	23.71	18.98	2.59	1.68	5.33	2.84	4.40	3.52	39.32	108.14
1976	59.38	44.44	29.80	20.30	4.27	2.49	6.20	3.52	6.64	3.77	28.09	113.86
1977	77.40	52.62	36.59	22.85	4.80	2.62	6.84	3.77	10.63	5.33	34.53	121.60
1978	88.16	61.05	46.20	28.62	6.27	3.20	7.71	4.27	15.62	8.94	38.74	130.39
1979	112.98	75.35	59.18	36.72	8.16	4.08	12.66	6.41	19.01	12.63	21.67	118.10
1980	123.32	85.16	57.67	36.92	10.25	5.11	10.72	5.81	16.50	11.42	43.69	130.16
1981	135.19	93.73	68.89	44.37	11.50	6.49	15.95	8.75	19.35	12.26	34.98	126.04
1982(r)	104.35	79.21	45.73	33.25	8.97	4.75	11.02	6.73	13.87	10.97	15.11	99.48
1983	114.51	82.04	53.28	34.90	12.49	6.33	12.62	7.06	13.55	11.50	26.98	85.46

r - Revised.

Source: U.S. Department of Commerce, "Survey of Current Business" (March).

Source: U.S. Bureau of Census & NMTBA

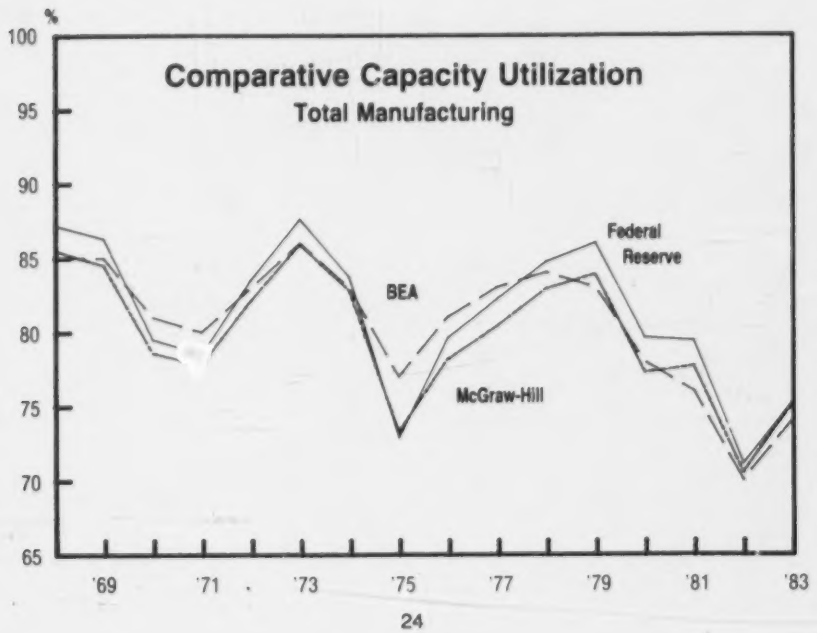
COMPARATIVE CAPACITY UTILIZATION MEASURES
Total Manufacturing, 1968 to Date

Year	Federal Reserve Board (r)	Bureau of Economic Analysis	McGraw-Hill
1968	87.2%	85%	85.5%
1969	86.3	85	84.5
1970	79.5	81	78.6
1971	78.5	80	77.8
1972	83.5	83	82.1
1973	87.6	86	85.9
1974	83.7	83	82.8
1975	72.9	77	73.3
1976	79.6	81	78.2
1977	82.2	83	80.4
1978	84.7	84	82.9
1979	86.0	83	83.9
1980	79.6	78	77.3
1981	79.4	76	77.7
1982(r)	71.1	70	70.5
1983	75.2	74	75.1

r - Revised.

Sources: Federal Reserve Board, U.S. Department of Commerce, Bureau of Economic Analysis, McGraw-Hill Publications Company.

For further explanation of "Capacity Utilization" see chapter introduction.



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MANUFACTURERS' INVENTORIES
Major Industry Groups, 1968 to Date
(Book Value in Billions of Dollars, Seasonally Adjusted)

As of Dec. 31	Total Manufacturing	Durables	By Industry Group: Primary Metals	By Industry Group: Fabricated Metal Products	By Capital Goods Industries: Nondefense	By Capital Goods Industries: Defense
1968	$ 90.6	$ 58.9	$ 7.5	$ 7.4	$19.8	$ 7.2
1969	98.2	64.7	8.1	7.6	22.6	7.6
1970	101.7	66.8	9.0	7.8	24.6	4.9
1971	102.7	66.3	9.1	8.0	24.2	4.0
1972	108.2	70.3	9.6	8.5	25.3	4.3
1973	124.6	81.4	10.0	9.9	29.8	4.5
1974	157.8	101.7	13.4	13.4	37.5	4.9
1975	159.9	102.9	15.7	13.1	37.1	5.7
1976	175.2	112.6	17.6	14.4	37.7	6.5
1977	189.2	121.6	18.2	15.6	41.6	6.1
1978(r)	210.4	137.8	19.4	17.3	49.4	6.4
1979(r)	240.9	160.5	22.4	19.2	60.0	8.4
1980(r)	264.1	174.6	22.9	19.6	68.5	10.7
1981(r)	282.1	186.1	25.6	20.3	72.9	13.4
1982(r)	264.6	175.0	21.4	17.7	70.3	15.9
1983	260.4	171.5	19.2	17.8	65.4	17.8

r - Revised.

Sources: U.S. Bureau of the Census, "Manufacturers' Shipments, Inventories and Orders: 1977-1983" and Series M3-1 (monthly).

MANUFACTURERS' INVENTORIES
Selected Industry Groups, 1968 to Date
(Book Value in Billions of Dollars, Seasonally Adjusted)

As of Dec. 31	Nonelectrical Machinery	Electrical Machinery	Motor Vehicles and Parts	Other Transportation Equipment	Instruments and Related Products
1968	$11.6	$ 8.8	$ 3.9	$10.5	$2.5
1969	13.3	9.6	4.1	11.8	2.7
1970	14.4	9.8	4.2	10.4	2.9
1971	14.2	9.4	4.2	9.6	3.0
1972	15.1	9.9	4.7	10.1	3.2
1973	18.4	12.1	5.8	10.7	3.8
1974	24.1	14.0	6.7	12.5	4.9
1975	24.1	13.0	6.1	13.5	4.8
1976	25.3	14.5	8.0	13.1	5.4
1977	27.3	16.4	9.2	13.3	6.0
1978(r)	31.7	19.0	10.2	15.8	6.9
1979(r)	37.1	23.0	10.9	20.7	7.9
1980(r)	40.7	25.9	9.8	26.1	9.1
1981(r)	43.4	28.4	9.1	28.4	9.7
1982(r)	40.1	26.6	8.3	32.1	9.2
1983	36.7	28.2	9.5	31.1	9.0

r - Revised.

Sources: U.S. Bureau of the Census, "Manufacturers' Shipments, Inventories and Orders: 1977-1983" and Series M3-1 (monthly).

PRODUCER PRICE INDEXES
For Selected Machine Tool Materials and Components

1967 = 100, unless otherwise indicated

Commodity	1975	1976	1977	1978	1979	1980	1981	1982(r)	1983
Finished Goods	163.4	170.3	180.6	194.6	216.1	247.0	269.8	280.7	285.2
All Commodities	174.9	182.9	194.2	209.3	235.6	268.8	293.4	299.3	303.1
Industrial Commodities	171.5	182.3	195.1	209.4	236.5	274.8	304.1	312.3	315.7
Manufactured Durables	165.6	175.5	188.1	204.7	226.1	250.8	269.7	279.8	287.3
Industrial Power, 500 KW Demand	209.7	226.9	257.0	279.5	305.3	368.1	422.2	473.1	487.8
Lubricating Oil Materials	266.5	265.1	304.3	349.5	477.9	756.4	873.6	877.2	787.5
Prepared Paint	166.9	174.2	182.4	192.3	204.4	235.3	249.8	262.8	264.7
Iron and Steel	200.9	215.8	230.4	253.6	283.5	305.2	333.8	339.0	343.4
Steel Mill Products	197.2	209.7	229.9	254.5	280.4	302.7	337.6	349.5	352.8
Semi-finished Steel Products	206.7	223.0	243.6	270.5	294.3	325.6	359.3	370.2	370.6
Finished Steel Products	196.6	208.9	229.0	253.5	279.5	301.2	336.2	348.0	349.9
Foundry and Forge Shop Products	194.3	218.3	230.5	249.5	277.1	310.0	329.8	345.5	351.1
Gray Iron Castings	180.1	199.7	211.1	225.1	245.5	270.7	NA	NA	NA
Steel Castings	196.8	216.3	234.4	257.3	291.9	327.8	NA	NA	NA
Gray & Ductile Iron Cast Dec. 1980 = 100	NA	NA	NA	NA	NA	NA	105.2	110.5	110.5
Nonferrous Metals	171.6	181.5	195.1	207.8	261.7	305.0	285.8	263.6	276.1
Primary Metal Refinery Shapes	184.8	191.6	206.0	218.3	295.4	377.2	326.1	284.3	303.7
Mill Shapes	180.9	194.1	213.1	229.9	270.4	292.7	304.1	301.5	310.8
Aluminum Shapes	163.8	176.8	202.1	226.5	247.3	266.7	293.4	296.5	305.2
Wire and Cable	152.3	151.3	156.1	155.2	186.5	217.6	207.5	202.5	204.0
Metalworking Machinery and Equipment	171.6	182.7	198.5	217.0	241.3	274.4	301.3	320.9	326.5
Cutting Tools & Access.	146.0	153.9	172.0	187.5	206.8	233.2	256.3	271.1	274.7
Abrasive Products	163.9	177.8	193.4	205.6	223.4	252.5	276.5	296.8	304.5
Metal Cutting Machine Tools	177.1	190.9	206.3	231.5	266.9	313.5	344.8	368.5	376.3
Metal Forming Machine Tools	192.2	212.9	232.6	262.8	300.1	346.7	380.3	404.7	415.8
General Purpose Machy. & Equipment	178.5	189.7	201.8	216.6	236.4	264.6	288.7	304.0	308.2
Pumps, Compressors, & Equipment	187.4	197.9	211.6	228.0	249.1	287.7	324.5	347.3	347.4
Fluid Power Equipment, Dec. 1970 = 100	135.0	143.8	152.7	163.3	176.2	199.6	222.3	244.3	252.9
Fluid Power Pumps, Dec. 1970 = 100	133.4	143.0	152.0	161.7	174.9	198.6	223.9	245.1	257.2
Fluid Power Valves, Dec. 1971 = 100	127.2	134.2	142.6	150.3	162.1	180.5	200.1	222.4	226.0
Cylinders, Dec. 1971 = 100	133.7	142.3	151.1	164.3	177.7	205.5	230.1	255.9	273.0
Fluid Power Hose and Tube Fittings, Dec. 1972 = 100	135.8	143.3	151.3	166.5	178.0	204.3	223.5	238.4	239.5
Mechanical Power Transmission Equipment	173.7	185.1	196.6	213.0	234.6	264.0	294.8	312.4	315.8
Miscellaneous General Purpose Equipment	185.7	195.6	206.9	222.7	246.4	279.4	307.0	323.5	325.0
Ball & Roller Bearings	164.2	176.4	191.4	206.3	227.0	265.1	304.8	331.5	331.7
Electrical Machinery and Equipment	140.7	146.6	154.1	164.9	178.9	201.7	220.2	231.6	240.1
Motors, Generators, Motor Generator Sets	174.9	193.0	202.2	218.1	234.6	266.3	296.1	309.8	329.5
Electric Motors	166.8	179.2	192.5	207.3	229.0	252.3	278.8	293.9	NA
Transformers and Power Regulators	134.5	138.4	146.5	155.2	164.3	182.7	208.8	221.7	223.3
Switchgear, Switchboard, etc. Equipment	154.5	161.9	173.9	184.0	200.0	233.0	250.8	263.8	272.4
Electronic Components and Accessories	115.5	115.4	119.5	126.9	135.8	156.3	168.1	176.1	183.6

NA - Not Available.

Note: The individual commodities shown are selected components of each major commodity grouping. All indexes are annual averages.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

SHIPMENTS OF MACHINE TOOLS AT CONSTANT PRICES

1947 to Date

(In 1983 Dollars)

Year	Metal Cutting		Metal Forming (a)	
	Current Dollars (Thousands)	1983 Dollars (Thousands)	Current Dollars (Thousands)	1983 Dollars (Thousands)
1947	$ 306,000	$3,357,104	—	—
1948	288,450	2,797,498	—	—
1949	249,150	2,275,550	—	—
1950	305,550	2,601,311	—	—
1951	632,250	4,610,925	—	—
1952	1,125,900	7,661,268	—	—
1953	1,191,200	8,032,908	—	—
1954	891,750	5,981,686	—	—
1955	670,400	4,327,115	—	—
1956	945,200	5,364,663	$ 432,100	$2,437,800
1957	900,150	4,750,633	342,550	1,830,741
1958	438,400	2,269,151	152,800	826,214
1959	440,600	2,231,451	175,400	941,038
1960	541,500	2,663,551	202,500	1,057,773
1961	541,250	2,584,643	209,650	1,096,496
1962	612,850	2,864,722	208,400	1,064,514
1963	638,450	2,973,407	257,300	1,306,290
1964	844,650	3,788,348	319,700	1,575,032
1965	1,022,550	4,357,767	403,050	1,876,659
1966	1,221,750	4,885,632	483,450	2,015,701
1967	1,353,200	5,092,004	452,750	1,882,536
1968	1,358,300	4,962,370	368,600	1,472,280
1969	1,192,450	4,201,430	405,100	1,568,331
1970	992,900	3,291,890	450,150	1,619,128
1971	672,300	2,160,416	325,600	1,118,862
1972	714,450	2,236,640	304,250	1,009,623
1973	1,073,750	3,151,692	427,250	1,335,699
1974	1,445,850	3,579,457	584,700	1,503,510
1975	1,878,650	3,991,692	573,050	1,239,724
1976	1,482,100	2,921,488	577,550	1,127,961
1977	1,650,800	3,011,145	629,950	1,126,117
1978	2,188,500	3,557,380	824,950	1,305,239
1979	2,930,050	4,131,078	946,500	1,311,414
1980	3,680,800	4,418,144	1,010,950	1,212,446
1981	4,104,500	4,479,477	991,100	1,083,619
1982	2,894,750	2,956,028	709,650	729,117
1983	1,371,500	1,371,500	473,550	473,550

(a) Shipment data not available prior to 1956.

Note: 1983 dollar values developed from the Producer Price Index (formerly Wholesale Price Index) for metal cutting and metal forming machine tools.

Source: U.S. Department of Labor, Bureau of Labor Statistics, NMTBA, "Industry Estimate of Machine Tool New Orders, Cancellations, Shipments and Backlog" (monthly).

When converted to constant dollars, the apparent record shipments in recent years disappear. For the years shown above, the historical constant dollar average for metal cutting is $3,780,896 and for metal forming is $1,003,984.

2

WORLD ECONOMY

The tables in this chapter are intended to provide a perspective of the U.S. position in the world economy. The picture has changed dramatically in the past twenty years as the rate of economic growth in many of the world's industrialized nations has surpassed that of the U.S. and their per capita income is approaching the levels achieved domestically. Also, the changes in the world's economic structure brought about by OPEC and the growth of many developing nations into newly industrialized powers have led to major shifts in the balance of economic power in the world. The rise to wealth of these developing nations has been accompanied by a substantial increase in world trade. Increasing specialization by these and the major industrial nations has created an environment of interdependence in which each nation is but a piece of the larger world economic puzzle.

Trends in growth rates in selected industrialized countries are presented in tables on Gross National Product, Real Gross National Product, and Industrial Production. Factors underlying these growth trends are found in the tables on international investment patterns and various tables of comparative prices, wages, productivity, and unit labor costs. The data and charts on cost recovery allowable for tax purposes on machinery and equipment in selected industrial countries are especially interesting. These graphically demonstrate how our industrial competitors are able to invest more than the average American firm, and by inference, they also demonstrate why the U.S. rate of productivity growth in recent years has been considerably lower than that of our major competitors.

Growth in the world economy and world trade has brought about a growing interest in the balance of payments positions of the various countries. A nation's balance of payments is considered a key indicator of the health or weakness of an individual economy. The same can be said for an industry trading in the world marketplace. In recent years disparate inflation rates, exchange rate movements, the phasing of national business cycles, and energy related problems have caused dislocations in many nations' and industries' balance of payments positions.

Since 1975, the overall United States balance of trade has moved from a small surplus to record deficits. Until 1978, the U.S. machine tool industry remained in surplus in its world trade position though the relative size of the surplus had been declining throughout the 1970's. Record high machine tool imports by U.S. manufacturers, combined with relatively small increases in machine tool exports, led to substantial balance of trade deficits in machine tool trade from 1978 through the present. In a little over a decade, the share of the domestic market represented by imports has grown from a negligible amount to almost one-third of total U.S. machine tool consumption.

The tables in this chapter provide comparative international statistics on world trade, balance of trade, balance of payments and export prices.

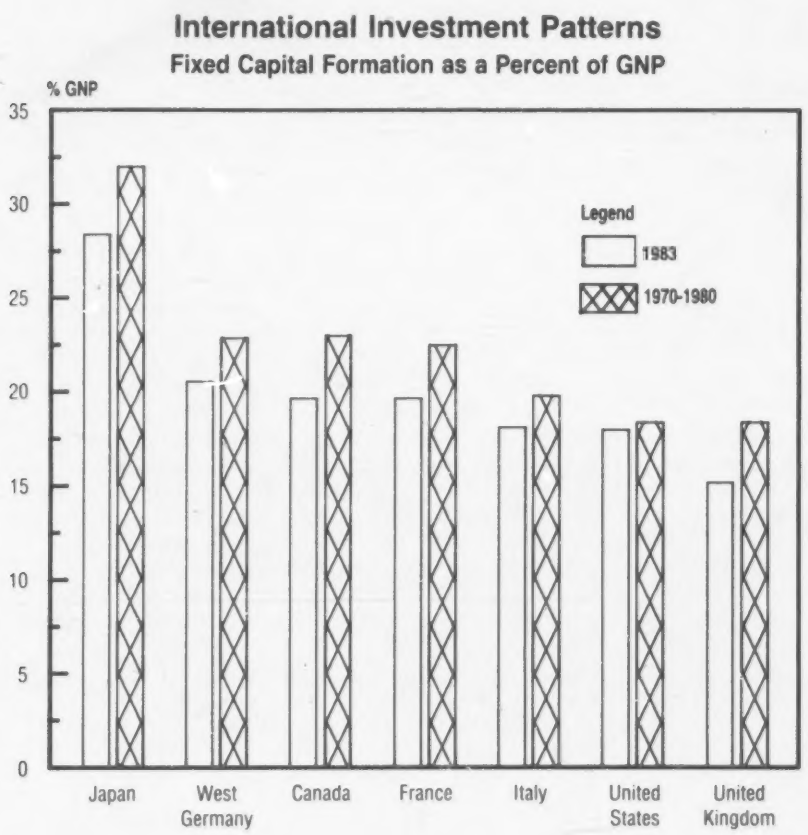
INTERNATIONAL INVESTMENT PATTERNS (r)

	Gross Fixed Capital Formation as Percent of GNP				
	1983	1982	1981	1980	1970-1980
United States	18.0%	16.3%	17.7%	15.2%	18.3%
Italy	18.1	19.2	20.3	19.8	19.8
United Kingdom	15.1	15.3	15.4	17.3	18.3
Canada	19.7	21.8	24.2	23.3	23.0
West Germany	20.5	20.5	21.9	22.7	22.8
France	19.7	20.8	21.2	21.6	22.5
Japan	28.4	29.9	31.1	32.0	32.6

Note: Fixed Capital Formation consists of non-residential structures and producers durable equipment as well as residential structures.

Source: International Monetary Fund, "International Financial Statistics," U.S. Department of Commerce.

The comparatively low percentage of the total Gross National Product (GNP) which is invested in fixed capital in the United States is one reason for its slower industrial growth. The additional fact that a smaller percentage of this investment is made in industry is another reason for concern for the industrial leadership of the United States.



PRODUCTIVITY IN MANUFACTURING (r)
Selected Countries, 1965 to Date
Indexes: 1977 = 100

	United States	Canada	Japan	France	West Germany	Italy	United Kingdom
Unit Labor Cost (a)							
1965	57.5	50.8	37.4	48.4	32.7	41.2	51.7
1966	59.4	53.0	37.4	47.4	34.2	40.4	54.1
1967	62.4	55.2	36.5	48.0	33.9	42.5	52.5
1968	64.6	55.5	37.9	48.9	33.7	42.0	45.7
1969	68.0	56.4	39.1	47.0	35.1	44.3	48.6
1970	72.7	61.7	41.3	46.8	43.2	50.6	55.0
1971	72.7	64.1	46.4	50.3	48.9	57.5	62.0
1972	73.0	67.0	55.2	57.1	55.4	64.5	66.6
1973	74.2	68.8	68.6	70.4	71.0	73.1	68.4
1974	84.1	79.7	81.7	74.5	79.5	77.6	81.1
1975	91.5	89.8	90.4	99.5	89.2	104.3	101.9
1976	94.6	100.7	88.2	96.3	87.6	90.5	93.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.4	98.1	126.2	117.3	121.6	115.6	124.0
1979	117.0	103.0	117.9	135.5	136.2	129.5	157.9
1980	130.5	116.3	111.8	153.6	147.5	141.4	212.7
1981	138.5	127.8	116.7	135.3	124.9	127.2	203.4
1982	148.5	142.7	100.2	123.8	120.3	123.7	186.1
1983	147.4	143.6	102.7	114.7	113.3	127.7	164.5
Hourly Compensation (a)							
1965	42.8	31.8	12.4	23.7	17.7	21.8	33.1
1966	44.8	34.4	13.6	25.1	19.3	22.8	35.8
1967	47.0	36.9	15.3	26.9	20.2	25.4	36.4
1968	50.4	39.7	17.9	30.3	21.5	27.1	33.9
1969	53.9	42.7	21.3	30.8	24.0	30.7	37.0
1970	57.6	47.4	25.4	32.4	30.3	36.8	42.8
1971	61.1	52.7	30.3	36.8	35.7	43.1	50.5
1972	64.4	57.6	40.1	44.2	43.1	52.3	58.2
1973	69.0	62.8	55.0	57.7	58.6	66.4	64.0
1974	76.3	74.4	67.1	63.3	69.0	74.0	77.4
1975	85.4	81.7	77.1	87.9	80.3	95.0	96.5
1976	92.3	96.9	82.3	91.4	84.2	89.5	92.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	99.5	136.1	124.2	124.7	119.1	125.6
1979	118.8	107.3	138.5	149.9	146.2	143.1	161.7
1980	132.7	118.7	143.8	172.5	160.5	165.3	215.3
1981	145.8	133.7	158.4	156.0	139.1	153.8	219.5
1982	158.2	145.7	147.0	150.6	136.3	153.5	206.9
1983	166.7	156.5	159.4	148.1	134.3	159.5	194.0
Output Per Man Hour (Productivity)							
1965	74.5	62.7	33.1	49.0	54.2	52.9	64.0
1966	75.3	64.9	35.5	52.9	56.4	56.4	66.1
1967	75.3	66.9	41.9	56.1	59.7	59.7	69.3
1968	78.0	71.5	47.1	62.0	64.0	64.5	74.3
1969	79.3	75.7	54.5	65.6	68.3	69.4	76.1
1970	79.1	76.8	61.4	69.3	70.1	72.7	77.8
1971	83.9	82.3	65.3	73.1	73.0	74.9	81.5
1972	88.2	85.9	72.7	77.5	77.8	81.1	87.5
1973	93.0	91.3	80.2	82.0	82.5	90.9	93.5
1974	90.8	93.4	82.1	85.0	86.9	95.3	95.5
1975	93.4	91.0	85.3	88.4	90.0	91.1	94.7
1976	97.5	96.2	93.3	94.9	96.1	98.9	99.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.8	101.4	107.9	105.9	102.5	103.0	101.3
1979	101.5	104.2	117.4	110.6	107.4	110.5	102.4
1980	101.7	102.0	128.6	112.3	108.8	116.9	101.3
1981	105.3	104.6	135.7	115.3	111.4	121.0	107.9
1982	106.5	102.0	146.8	121.7	113.3	124.1	111.2
1983	113.1	109.0	155.2	129.1	118.5	124.8	118.0

r - Revised.

(a) U.S. dollar basis.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

COST RECOVERY ALLOWABLE FOR TAX PURPOSES ON MACHINERY AND EQUIPMENT

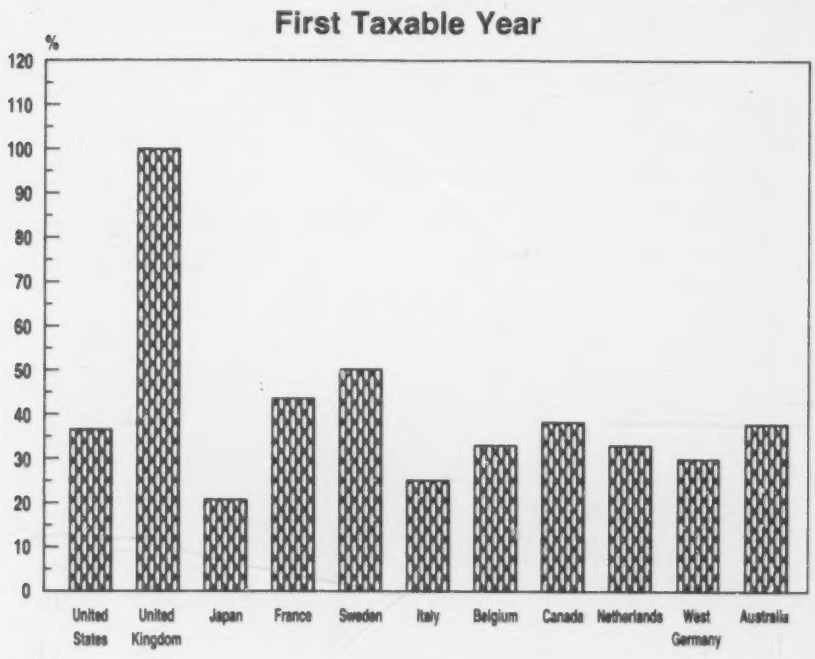
(Percent of Original Cost)

Country	First Year	Third Year	Seventh Year
U.S.	36.7	79.7	121.7
United Kingdom	100.0	100.0	100.0
Japan	20.6	50.0	80.1
France	43.8	73.4	95.8
Sweden	50.0	85.7	120.0
Italy	25.0	75.0	100.0
Belgium	33.0	61.8	102.0
Canada	38.4	108.2	108.2
Netherlands	33.1	53.1	93.1
West Germany	30.0	65.7	91.7
Australia	38.0	78.0	118.0

Note: These capital cost recovery allowances are based on statutory or other published provisions of law. As such they do not reflect informal or ad hoc arrangements that are frequently available in foreign countries - but not in the U.S. - to increase the rate of cost recovery actually allowed to industrial producers in those countries.

Source: Report of the President's Task Force on Business Taxation, September 1970, pages 28-29 updated by Price Waterhouse & Company. The most recent data is for the year 1983.

Cost recovery allowable for tax purposes includes depreciation as well as any tax credits. Where credits are available, total allowable cost recovery exceeds 100% of the original purchase cost. The rate of depreciation determines how quickly these costs are recovered. The percent values as stated are based on accelerated depreciation rates applicable in each country. At the end of the depreciation period, the taxable profits of the enterprise will have been reduced by the allowable cost recovery. The actual tax savings will depend on the tax rate prevailing in the specific country.



3

U. S. MACHINE TOOL INDUSTRY

The "Machine Tool Industry" actually consists of two industries according to the government's Standard Industrial Classification system (SIC); Metal Cutting Machine Tools (SIC 3541) and Metal Forming Machine Tools (SIC 3542).

The distinction between "industries" and "products" should be clearly kept in mind to avoid confusion in studying the statistical data in this Handbook. In brief, the machine tool industry produces not only machine tools but other products. The reverse of this is also true—not all machine tools are produced by the machine tool industry—some other industries also produce machine tools.

The machine tool industry is made up of the establishments whose "primary products" are machine tools. Data on shipments by the machine tool industry covers the totality of the shipments of the establishments in the industry. This means that not only the machine tools but also "secondary products"—products that are generally produced by other industries—are covered. Such secondary products may be tooling, machine tool accessories, abrasive products, wood- or plastic-working machines, or a variety of other products.

To measure the degree to which an industry produces its primary and secondary products, the Census Bureau has developed a "primary specialization ratio" which describes the proportion of total product shipments that are "primary products." For the metal cutting industry, this specialization ratio was 87%, for 1977. This means that 87% of the products shipped by this industry were metal cutting machine tools and 13% were products other than metalcutting machine tools. For metal forming, the corresponding figures are 90% and 10%.

The Bureau of the Census reports not only "industry" totals but also "product" totals. To obtain a product total, it adds to the machine tools produced by the machine tool industry all the machine tools produced by other industries as secondary products.

In addition to the industry specialization ratio described above, the Census has developed a ratio to describe the proportion of primary products produced by the establishments classified in the industry to total shipments of such products by all manufacturing establishments. This ratio is called the "coverage ratio." In 1977, the coverage ratio in metal cutting was 92%, in metal forming 87%. This means that the metal cutting industry produced 92% of all metal cutting machine tools produced in the U.S., the metal forming industry 87% of all American metal forming machine tools.

The data in Chapter 3 deal exclusively with the machine tool INDUSTRY. Chapter 4 deals with PRODUCTS—total machine tool orders and shipments. As already indicated, industry data are based on the Standard Industrial Classification system. This system was developed to classify establishments by type of activity—it covers the entire field of economic activities. The system is structured by digits. The first two digits identify the major industry group, the third digit identifies the industry group, and the fourth digit identifies the industry. The fifth, sixth, and seventh digits are used to define product classes (fifth) and individual products (sixth and seventh). For example:

Industries	Major Group 35:	Machinery, Except Electrical
	Group 354:	Metalworking Machinery, and Equipment
	Industry 3541:	Machine Tools, Metal Cutting Types
Products	Product Class 35413:	Gear Cutting Machines
	Product 3541371:	Gear Tooth Finishing Machines

Size of the Industry

The machine tool industry is relatively small compared to other U.S. industries. Many of the larger industrial corporations have more employees and a higher value of product shipments than the entire machine tool industry. If all of the machine tool industry were combined into one firm, its sales would rank 191st on the 1983 "Fortune 500" listing of America's largest manufacturing companies. Currently, as a result of the recession, the industry's employment has fallen to around 65,000 people, a level substantially below the Spring 1980 level of over 110,000 employees.

While the most recent Census of Manufactures (1977) reports more than 1,300 establishments in SIC 3541 and SIC 3542, estimates by the NMTBA and Census Bureau indicate that approximately 40% of these plants primarily manufacture machine tool accessories, dies, tools, jigs and fixtures rather than machine tools. According to the 1977 Census, two-thirds of these establishments had fewer than 20 employees.

Location of the Industry

During the 19th century, the machine tool industry was located almost entirely in New England. Its center moved southward into the Middle Atlantic States and Pennsylvania and then west into Ohio and other parts of the Middle West as the 1800's drew to a close. Development and growth were closely related to the growth of other industries such as textile machinery, small arms, watches and clocks, ships, railroads, farm machinery, and bicycles. By 1900, Cincinnati had become the leading machine tool center, Philadelphia was second, Providence, R.I., third. In the 1920's the rapid growth of the automobile industry accounted for the rapid growth of machine tool production in Michigan and Illinois. The decline of Pennsylvania as a machine tool producer was closely related to the decline of the locomotive. Today, the leading metal cutting machine tool producing states are Ohio, Michigan, Illinois, Connecticut, New York and Wisconsin, and the leading metal forming machine tool producers are Illinois, Ohio, Michigan, New York, and Connecticut.

Sources of Industry Data

Data on the machine tool industry comes from the Census of Manufactures (which takes place every five years) and the Annual Survey of Manufactures. The Census is based on reports from individual establishments and is very detailed. However, the Census suffers from several shortcomings. It focuses primarily on large establishments, thus data on smaller establishments are less reliable. Also, the Census is published with a considerable time lag. Because 1977 was a Census year and because of the time lag in the publication of the Census data, many of the charts and tables in this chapter were previously published using preliminary Census statistics. The final Census data were published in early 1981 and all charts and tables citing the Census have been revised to reflect these final statistics.

In general, the industry finds that its own data, and those released quarterly by the government as "Current Industrial Reports" (MQ-35W), are more useful and timely. The main value of the 5-year Census lies in the broader coverage and in the fact that shipment, employment, compensation, and other data are all available for the same population. This permits the calculation of ratios otherwise not available. The Annual Survey of Manufactures is based on sample surveys and covers fewer items than the Census. It is also published with a considerable delay between the time of data collection and distribution.

THE MACHINE TOOL INDUSTRY (a)
General Statistics 1958 to Date
Metal Cutting and Metal Forming

Year	Establishments: Total	Establishments: With 20 or More Employees	Employees (Number)	Value Added by Manufacture	Cost of Materials	Value of Shipments
				(Millions of Dollars)		
METAL CUTTING MACHINE TOOL INDUSTRY, SIC 3541						
1958	627	231	52,864	$ 421.0	$ 217.7	$ 679.8
1963	801	269	61,058	699.3	381.6	1,050.8
1965	NA	NA	70,827	993.6	559.2	1,524.4
1966	NA	NA	79,767	1,234.2	669.4	1,826.1
1967	903	338	87,200	1,391.3	766.9	2,127.2
1968	NA	NA	84,300	1,377.1	718.9	2,099.1
1969	NA	NA	82,600	1,441.5	744.5	2,108.3
1970	NA	NA	71,300	1,112.1	664.0	1,821.7
1971	NA	NA	54,000	819.8	473.2	1,351.1
1972	894	275	52,500	901.7	536.3	1,418.1
1973	NA	NA	59,900	1,214.1	764.1	1,891.1
1974	NA	NA	65,000	1,617.0	1,017.9	2,480.5
1975	NA	NA	62,800	1,640.3	1,050.3	2,727.8
1976	NA	NA	58,100	1,664.1	852.3	2,496.2
1977	919	307	59,500	1,871.0	1,049.6	2,819.1
1978	NA	NA	64,300	2,267.0	1,417.7	3,611.8
1979	NA	NA	69,100	2,833.8	1,736.9	4,389.0
1980	NA	NA	72,800	3,349.2	2,026.1	5,227.6
1981(r)	NA	NA	74,300	3,729.8	2,187.3	5,865.3
1982(p)	941	293	58,700	NA	1,604.7	4,468.2
METAL FORMING MACHINE TOOL INDUSTRY, SIC 3542						
1958	291	147	22,502	$ 176.0	$ 130.1	$ 317.7
1963	366	146	22,078	281.3	165.4	441.4
1965	NA	NA	25,517	349.0	254.3	582.8
1966	NA	NA	28,407	432.1	311.9	727.7
1967	350	158	29,200	437.2	295.4	714.0
1968	NA	NA	27,900	453.3	270.0	718.2
1969	NA	NA	28,000	453.1	290.2	726.5
1970	NA	NA	28,900	469.6	328.6	776.1
1971	NA	NA	24,400	363.9	278.0	667.7
1972	383	162	24,100	417.7	285.3	693.6
1973	NA	NA	27,000	546.5	370.8	886.2
1974	NA	NA	29,000	633.7	505.4	1,099.3
1975	NA	NA	26,000	618.3	483.2	1,106.6
1976	NA	NA	22,900	621.1	433.9	1,070.7
1977	426	163	23,700	721.9	444.0	1,130.6
1978	NA	NA	25,200	841.3	576.4	1,366.0
1979	NA	NA	27,000	1,004.0	687.0	1,663.5
1980	NA	NA	26,900	1,042.1	718.5	1,753.1
1981	NA	NA	24,000	976.5	662.7	1,615.7
1982(p)	452	164	19,500	NA	574.7	1,426.3

NA - Not Available. p - Preliminary. r - Revised.

(a) The machine tool industry (Standard Industrial Classifications SIC 3541 and 3542) produces primarily metal cutting and metal forming machine tools. It also produces other (secondary) products, such as small cutting tools, attachments and accessories and others. These secondary products as well as machine tool parts and some other items are included in this table. It therefore differs from other Census and NMTBA data on shipments of machine tools.

Sources: U.S. Bureau of the Census, "Census of Manufactures, 1963, 1967, 1972, 1977, 1982 Metalworking Machinery and Equipment" and "Annual Survey of Manufactures."

4

U. S. MACHINE TOOL SHIPMENTS AND ORDERS

This chapter deals with machine tool products shipped by the machine tool industry and other industries.

Up and Down Performance

The machine tool business is highly cyclical, a fact evidenced by historical patterns of new orders, shipments and order backlogs. The dramatic ups and downs in the value of shipments and orders tend to obscure significant changes in the "product mix"; the share of the total comprised by the different major machine tool product categories.

One of the more notable of these changes is the increased share of "other machines" in metal cutting machine tool shipments. This category's share of output has risen from a 15-20% in the late 1950's and early 1960's to more than twice that level in recent years. The reason for this dramatic rise is that this group includes station type machines and multi-function NC machines (machining centers). As such, its increased market share demonstrates parallel yet divergent trends ongoing in American metalworking.

Station type machines are highly specialized, dedicated machines, designed to produce one part in volumes of up to hundreds of thousands per year. They are the model of efficiency through the use of dedicated mass production. Machining centers, on the other hand, represent efficiency through flexibility. By virtue of their tool changing capability and their numerical control - in which a part-making program maintains the production process rather than manual control - these machines can be easily reprogrammed to produce a variety of parts.

These are only two examples of how machine tool technology, and America's machine tool builders have responded to the changing metalworking needs of America's manufacturers

Data Sources

Census and Annual Survey of Manufactures

The broadest coverage of machine tool shipment data is provided by the Census of Manufactures and the Annual Surveys of Manufactures. Included in these reports are statistics for: most of the major categories of metal cutting machine tools (boring, drilling, gear cutting, presses, etc.), machine tools primarily designed for home workshops and laboratories, parts sold separately, and machine tools originating primarily from small-sized plants-not specified by kind. Broad coverage is given to both metal cutting and metal forming machine tools in these reports.

The comprehensive Census of Manufactures is taken every five years (those ending in 2 and 7) and the Annual Survey of Manufactures is published in non-Census years. The charts and tables in this chapter were updated with published

revised reports from the 1977 Census of Manufactures and the 1981 Annual Survey of Manufactures.

There are two other sources of machine tool shipment data widely used by students of the industry. One is the monthly order and shipment series published by NMTBA. The other is the quarterly "Current Industrial Report, Metalworking Machinery" (MQ35W), published by the U.S. Department of Commerce. The MQ-35W provides more detailed coverage of shipments by product types than either the Census or Survey of Manufactures. Both the MQ-35W and the NMTBA estimates are more timely and are published more frequently than the Census or Annual Survey.

NMTBA Estimate of Orders and Shipments

The NMTBA "Industry Estimate of Machine Tool New Orders, Cancellations, Shipments, and Backlog" is published monthly, normally three or four weeks after the end of the month reported. This report differs from the broader Census report in that it is limited to complete machine tools and excludes the value of: (a) machine tools costing under $2,500, (b) machine tools designed for home workshops, etc., (c) rebuilt machines and (d) parts sold separately.

Machine tool manufacturers representing more than two-thirds of total U.S. machine tool shipments participate in the NMTBA survey. The figures received each month from respondents are expanded, based on "benchmark" totals derived from the MQ-35W reports, to an estimate of the industry total by NMTBA's Statistical Department.

The MQ-35W Report

The "Current Industrial Report, Metalworking Machinery" (MQ-35W) is published quarterly, usually about three months after the end of the quarter reported, by the Bureau of the Census.

The report covers the number and value of total machine tools shipped, by 5- and 7-digit SIC categories, for more than 120 different machine tool products. It does not report new orders but does report unfilled orders.

The report is limited to information on complete new machine tools, excluding data for small machine tools designed for home use, etc., and data for rebuilt machines. It lists separately machines with a value of $2,500 and over, and those with a value under $2,500. The MQ-35W figures, excluding machine tools with an average value under $2,500, form the benchmark used for the NMTBA "Industry Estimate."

The MQ-35W report also provides data on numerically controlled machine tools and on manufacturers' exports. It is intended to cover all manufacturers of machine tool products, including those who produce machine tools for their own use but not for sale in the marketplace, and thus to cover all shipments.

SHIPMENTS
Metal Cutting and Metal Forming Machine Tools, 1956 to Date
(Millions of Dollars)

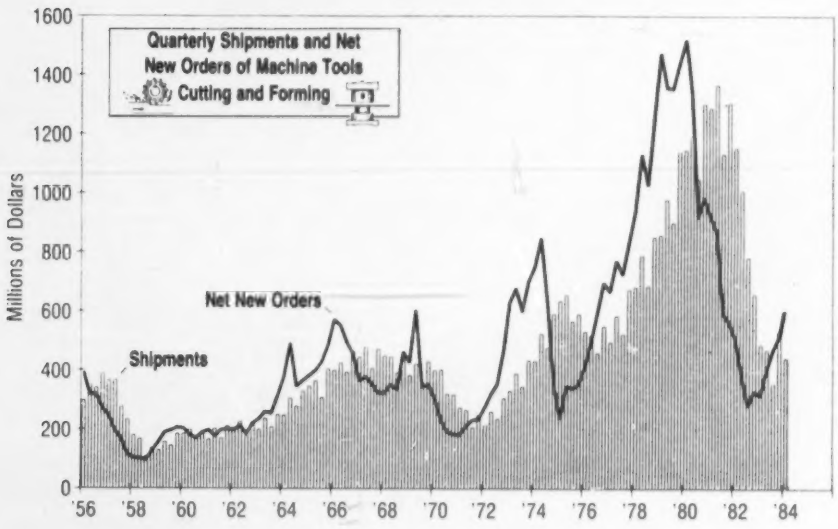
Year	TOTAL			Metal Cutting			Metal Forming		
	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign
1956	$1,377	$1,270	$107	$ 945	$ 858	$ 87	$ 432	$412	$ 20
1957	1,243	1,110	33	900	803	97	343	307	36
1958	591	507	4	438	381	57	153	126	27
1959	616	538	78	441	390	51	175	148	27
1960	744	580	64	541	420	121	203	160	43
1961	751	522	229	541	366	175	210	156	54
1962	821	606	215	613	450	163	208	156	52
1963	896	741	155	639	526	113	257	215	42
1964	1,164	959	05	845	679	166	319	280	39
1965	1,426	1,249	177	1,023	886	137	403	363	40
1966	1,685	1,535	150	1,222	1,098	124	463	437	26
1967	1,806	1,618	188	1,353	1,211	142	453	407	46
1968	1,727	1,563	164	1,358	1,238	120	369	325	44
1969	1,597	1,446	151	1,192	1,077	115	405	369	36
1970	1,443	1,239	204	993	827	166	450	412	38
1971	998	840	158	672	554	118	326	286	40
1972	1,019	894	124	714	627	87	304	267	37
1973	1,501	1,323	178	1,074	935	139	427	388	39
1974	2,031	1,763	267	1,445	1,241	205	585	522	63
1975	2,452	2,033	419	1,879	1,548	331	573	484	89
1976	2,060	1,744	316	1,482	1,270	212	578	474	104
1977	2,281	2,030	251	1,651	1,470	181	630	560	70
1978	3,013	2,689	325	2,189	1,960	228	825	729	96
1979	3,877	3,465	411	2,930	2,605	325	947	860	87
1980	4,692	4,084	608	3,681	3,206	475	1,011	878	133
1981	5,096	4,377	719	4,105	3,553	552	991	824	167
1982	3,604	3,198	406	2,895	2,599	296	710	600	110
1983	1,845	1,630	215	1,372	1,200	172	474	430	43

Individual items may not add to totals due to rounding.

Source: NMTBA, "Industry Estimate of Machine Tool New Orders, Cancellations, Shipments and Backlog" (monthly).

Total Machine Tool Shipments (Bar) and Net New Orders (Line)

Quarterly, 1956:1 to 1984:1



SHIPMENTS OF METAL CUTTING MACHINE TOOLS
By Class of Product, 1954 to Date
(Millions of Dollars)

Year	TOTAL	35411 Boring Machines	35412 Drilling Machines	35413 Gear Cutting and Finishing	35414 Grinding and Polishing	35415 Lathes	35416 Milling Machines	35417 Other Metal Cutting Machines
1954	$ 879.0	$114.4	$ 86.1	$ 48.1	$154.3	$206.9	$122.5	$ 146.7
1955	665.8	77.4	53.8	36.6	123.9	153.3	89.6	131.2
1956	891.8	101.8	65.4	49.4	172.8	217.1	115.8	169.5
1957	878.3	102.0	56.3	38.9	160.1	199.8	155.0	166.2
1958	463.0	51.6	30.0	22.7	89.4	98.7	89.3	81.3
1959	468.8	46.2	33.4	24.7	93.8	119.5	73.3	77.9
1960	539.3	46.9	38.9	34.3	117.0	135.4	79.4	87.4
1961	531.3	51.5	36.8	36.4	121.0	126.5	73.7	85.4
1962	626.8	61.4	53.2	35.8	127.9	152.3	95.8	100.4
1963	657.6	67.9	52.0	39.5	136.8	154.8	106.1	100.5
1964	874.5	74.1	72.3	47.1	175.9	198.1	125.8	181.2
1965	1,047.8	91.9	83.2	55.7	213.6	234.8	144.0	224.7
1966	1,231.9	110.9	105.9	59.0	235.9	286.5	201.7	232.0
1967	1,373.2	117.8	122.8	63.9	247.8	334.0	234.3	252.6
1968	1,309.4	93.7	67.7	68.2	235.1	316.2	234.1	294.4
1969	1,242.6	80.2	67.5	65.6	227.3	288.9	184.6	328.5
1970	1,097.7	62.1	70.9	66.3	219.4	240.1	110.0	329.0
1971	714.5	35.8	43.4	50.1	142.9	174.9	54.4	212.7
1972	858.0	54.1	65.8	50.3	151.0	203.2	81.7	251.9
1973	1,224.7	66.7	90.5	55.4	209.6	299.0	104.6	398.9
1974	1,525.6	81.4	77.9	66.2	249.9	370.2	137.7	542.3
1975	1,790.4	83.9	92.9	65.1	273.2	464.2	134.0	677.1
1976	1,592.2	77.8	100.4	56.0	246.8	430.3	134.4	546.6
1977	1,791.3	84.9	107.2	61.4	273.1	436.3	160.2	668.1
1978	2,334.4	117.7	152.4	102.7	348.6	535.9	194.3	882.9
1979	3,037.2	177.4	150.5	111.2	474.9	650.3	279.8	1,193.1
1980	3,716.4	192.0	166.9	130.3	555.8	827.0	339.3	1,505.2
1981	4,046.9	231.0	140.0	133.1	615.4	816.8	436.6	1,674.2
1982(r)	2,922.2	193.8	102.7	86.5	459.8	525.7	302.6	1,251.2
1983(p)	1,584.9	95.1	60.5	35.6	283.7	345.7	186.9	577.4

p - Preliminary. r - Revised.

Note: Other Metal Cutting Machines include machining centers, transfer machines, shapers, sawing and cutoff machines, and other metal cutting machines not classified elsewhere. For a breakdown by type, refer to pages detailing shipments of these machines also appearing in this chapter.

Individual items may not add to totals due to rounding.

Source: U.S. Department of Commerce, "Current Industrial Reports, Series MQ-35W, Metalworking Machinery" (Quarterly and Annual Summaries).

SHIPMENTS OF METAL FORMING MACHINE TOOLS
By Type of Machine, 1954 to Date
(Millions of Dollars)

Year	TOTAL (a)	35422 Presses, Including Forging (b)	35423 (In Part) Forging Machines, Excluding Presses (c)	35421 (In Part) Punching and Shearing Machines	35421 (In Part) Bending and Forming Machines	35423 (In Part) 35485 (In Part) Other (a)
1954	$ 350.2	$ 216.4	$ 24.4	$ 26.3	$ 35.6	$ 47.5
1955	295.4	170.8	15.6	28.9	35.8	44.3
1956	384.1	240.1	15.5	34.9	48.8	44.8
1957	403.2	238.7	24.7	38.3	43.9	57.6
1958	209.0	76.5	17.4	32.0	32.1	51.0
1959	210.8	84.6	17.9	29.9	35.7	42.7
1960	238.4	105.0	21.0	32.9	34.3	45.2
1961	233.1	111.3	15.8	33.3	32.5	40.2
1962	240.4	109.5	23.7	34.5	29.0	43.7
1963	309.5	136.0	22.3	42.8	45.2	63.2
1964	334.6	169.5	23.1	33.2	42.7	66.1
1965	409.9	209.2	32.8	43.9	49.4	74.6
1966	480.9	253.3	32.7	49.7	51.0	94.2
1967	496.1	240.1	29.6	56.9	57.4	112.1
1968	413.4	199.1	31.9	57.1	64.4	60.9
1969	449.6	223.7	32.0	53.6	66.0	74.3
1970	454.1	239.6	36.6	47.7	59.8	70.4
1971	343.4	166.5	37.0	41.4	53.3	45.2
1972	411.3	166.7	34.5	62.5	67.9	79.8
1973	563.1	242.7	38.7	75.8	94.5	111.4
1974	640.4	307.0	40.1	86.1	113.0	94.2
1975	615.7	269.4	39.5	121.0	115.4	70.4
1976	586.0	223.6	52.2	120.0	118.8	71.4
1977	662.1	260.7	55.1	130.6	137.2	78.5
1978	808.2	350.9	59.3	146.6	147.7	103.7
1979	1,026.8	434.0	84.7	181.2	183.4	143.5
1980	1,096.0	440.8	73.8	204.2	214.9	162.3
1981	1,064.3	429.6	79.0	206.1	212.8	136.8
1982(r)	826.7	338.7	78.8	137.9	157.8	113.4
1983(p)	547.7	149.2	46.3	116.6	133.1	102.6

p - Preliminary. r - Revised.

(a) Includes some metalworking machinery which are not machine tools for 1959 through 1967. These metalworking machines are excluded after 1967.
(b) Excludes forging presses from 1979 to date.
(c) Includes forging presses from 1979 to date.

Individual items may not add to totals due to rounding.

Source: U.S. Department of Commerce, "Current Industrial Reports, Series MQ-35W, Metalworking Machinery" (Quarterly and Annual Summaries).

SHIPMENTS OF DRILLING MACHINES
Units and Value, 1976 to Date

Products	1976	1977	1978	1979	1980	1981	1982(r)	1983(p)
UNITS								
TOTAL	40,664	42,815	52,247	44,697	34,898	27,195	22,913	14,976
Unit Value Under $1,000(a)	36,154	36,971	49,412	41,476	31,474	24,129	20,878	13,618
Unit Value $1,000 and Over(b)	4,510	5,844	2,835	3,221	3,424	3,066	2,035	1,358
Vertical Drilling Machines								
Plain Upright	929	1,530	438	1,339(d)	1,089(e)	892(e)	592(e)	298(e)
Indexing Turret Head, Heavy Duty and Other	289(d)E	249(d)	277(d)					
Radial Drilling Machines								
Plain and Universal Under 13"	175	68	54	226	232	331	154	120
All Other	D	D	D					
Deep Hole Drilling Machines	(c)	(c)	(c)	184	190	154	110	
Multiple Spindle Drilling Machines								
Adjustable Joint, Fixed Center	502	301E	290	378	628	522	371	202
Automatic Drilling		D	598	797	(c)	(c)	368	738
All Other	112	105	D					
All Other Drilling Machines	1,835	2,202	256	297	1,285	1,167	440	
VALUE (Millions of Dollars)								
TOTAL	$100.4	$107.2	$152.4	$150.5	$186.9	$139.9	$102.7	$60.5
Unit Value Under $1,000(a)	13.2	12.8	22.2	25.9	18.6	20.2	17.6	12.6
Unit Value $1,000 & Over(b)	87.2	94.4	130.2	124.6	148.3	119.8	85.1	47.9
Vertical Drilling Machines								
Plain Upright	3.3	3.9	2.6	18.2(e)	22.7(e)	21.1(e)	14.7(e)	6.9(e)
Indexing Turret Head, Heavy Duty and Other	6.4(d)E	5.9(d)	7.5(d)					
Radial Drilling Machines								
Plain and Universal Under 13"	2.7	2.1	1.7	9.7	12.6	14.0	5.2	7.6
All Other	D	D	D					
Deep Hole Drilling Machines	(c)	(c)	(c)	5.8	10.6	15.7	10.4	
Multiple Spindle Drilling Machines								
Adjustable Joint, Fixed Center	43.9	13.5E	11.6	21.1	26.2	20.1	10.4	6.2
Automatic Drilling		D	67.0	57.0	(c)	(c)	28.0	27.3
All Other	11.5	6.4	D					
All Other Drilling Machines	8.7	11.2	9.5	18.6	76.2	47.8	16.4	

p - Preliminary. r - Revised. D - Withheld to avoid disclosure. E - Estimate by NMTBA.

(a) Average value under $2,500 for 1978 to date.
(b) Average value $2,500 and over for 1978 to date.
(c) Included with "All Other Drilling Machines."
(d) Includes only heavy duty. Disclosure was reported for indexing turret head and other.
(e) Includes all vertical drilling machines.

Source: U.S. Department of Commerce, "Current Industrial Reports, Series MQ-35W, Metalworking Machinery" (Quarterly and Annual Summaries).

5

U. S. MACHINE TOOL FOREIGN TRADE

Foreign trade in machine tools has been a fact of life in the world's metalworking markets since the beginning of the industrial era. As a preeminent producer, the U.S. machine tool industry has historically exported around 15% of its annual output. However, in recent years the U.S. industry's position as an export leader has been challenged by competitors from other industrial nations and from developing nations. As a result of the combined effects of the increased competition, the worldwide recession of the past several years, and the extremely high value of the dollar relative to other currencies, U.S. machine tool exports have declined significantly since 1981. Imported foreign machine tools, on the other hand, have continued to increase their penetration of the U.S. market.

After having peaked at a value of over $1 billion in 1981, U.S. exports of machine tools fell to $615 million in 1982 and fell again to $406 million in 1983. Imports also declined during this time period, but by a much smaller proportion. After registering a record high of $1.49 billion in 1981, imports fell to $1.25 billion in 1982 and declined again to $946 million in 1983. However, since shipments of U.S. built machine tools fell far more rapidly than either imports or exports, the share of domestic market taken by imports continued to climb. From a level of 25% in 1981, the import market share had risen to 33% by 1983.

Similarly, the machine tool trade deficit remained significant. At a record $635 million for 1982 and a slightly lower $540 million for 1983, the deficits for both years exceeded the total value of U.S. machine tool exports for the first time in the industry's history. These deficits underscore the importance of international trade to the machine tool industry and bring into focus the reality of the world marketplace. Reestablishing its position in this world market is vital to the future of the U.S. machine tool industry.

United States Foreign Trade Statistics

The most widely used data on foreign trade are the Census Bureau reports on exports and imports. Exports and imports are compiled from copies of the shipper's own declaration filed with U.S. Customs officials. Export values are those declared by the shipper at the time of exportation. Freight, insurance, and other charges are included, thus giving exports a value higher than that of the machine tool at the manufacturer's plant.

The Census data include shipments by manufacturers and by others such as dealers and distributors. They also include exports of rebuilt machine tools, replacement parts, and machine tools designed for use in home workshops, laboratories, garages, service shops, or for modelmaking.

While the Census export figures tend to show a value higher than the value of the machines at the manufacturer's plant, import figures show values considerably

lower than those paid by the purchaser of foreign machine tools. Values are, in general, based on the market value, or price, in the foreign country at the time of exportation and include the cost of containers and coverings as well as other charges and expenses incidental to placing the merchandise into condition for shipment to the United States. However, they exclude import duties, insurance, ocean freight, and other charges incidental to the arrival of the goods in the United States.

As a result of these and other factors inflating the "value" of the exports and deflating the "value" of the imports, the impact of imports is greater than that shown in most tables in this chapter. The negative balance of trade, correspondingly, is larger than shown.

There are two additional export series with a more limited scope but considered more accurate by the industry.

The first is a series on foreign orders and shipments that is part of the NMTBA "Industry Estimates of New Orders, Cancellations, Shipments, and Backlog," published monthly for the entire industry (see Chapter 4 for details on this report).

The other is the series on exports, based on manufacturers' shipments for export, published in the MQ-35W series by the Department of Commerce (see Chapter 4 for details). This report shows manufacturers' shipments of new and complete machine tools for 12 major machine tool categories. It also shows the historical quantity and value of exports for about 15 selected types of machine tools through 1972, but only the value of exports from 1973 forward.

The two major reasons the Census data are the most widely used in spite of their shortcomings are that (1) the Census series on imports is the only one available, and (2) the two Census series on ports and imports include a similar broad "universe" (new, used, and rebuilt machines and home-workshop type machine tools).

Beginning with 1980 data, the commodity descriptions and classification numbers for machine tools were revised. Although the machine tool categories differ slightly, the resulting TSUSA import and Schedule B export classification codes are comparable and permit direct comparisons of foreign trade by product types. Foreign trade data are also comparable to U.S. production data (MQ-35W, see Chapter 4), permitting the calculation of U.S. consumption of machine tools for a variety of product types.

U.S. MACHINE TOOL IMPORTS AS A PERCENTAGE OF U.S. MACHINE TOOL CONSUMPTION(r)

By Type of Complete Machines Valued Over $2,500 (a), 1975 to Date

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Machine Tools	14.8	16.4	16.8	20.6	22.6	23.3	24.9	26.8	32.5
Metal Cutting	14.8	16.1	17.5	21.6	23.0	23.6	26.1	27.6	31.5
Boring Machines	29.1	26.6	34.2	39.3	26.0	25.0	29.3	25.2	29.6
Drilling Machines	12.4	17.2	19.8	13.8	18.8	17.7	21.7	22.2	20.0
Gearcutting Machines	38.1	35.8	26.8	31.7	32.9	29.8	31.1	28.1	36.7
Lathes	17.5	19.1	24.0	33.1	37.3	36.0	41.3	44.9	36.6
Milling Machines	17.1	17.8	16.8	22.6	24.5	30.2	23.9	23.9	23.4
Machining Centers	NA	NA	NA	NA	11.3	20.8	31.3	38.3	51.9
Metal Forming	14.9	17.8	14.7	17.4	21.1	22.1	19.4	23.6	35.5

NA - Not Available. r - Revised.

(a) Based on shipments of complete machine tools with values greater than $1,000 for 1975–1977 and $2,500 for 1978 to date.

Sources: U.S. Dept. of Commerce: "Current Industrial Reports, Series MQ-35W, Metalworking Machinery", and U.S. Bureau of the Census, "IM 146" and "EM 522".

UNITED STATES PRODUCTION, IMPORTS, EXPORTS, AND DOMESTIC CONSUMPTION OF NEW COMPLETE MACHINE TOOLS(a,r), 1958 to Date

(Thousands of Dollars)

Year	Production	Exports	Imports	Domestic Consumption
1958	$654,387	$127,608	$28,105	$554,884
1959	668,952	114,271	32,461	587,142
1960	762,457	164,094	35,656	634,019
1961	751,626	239,635	32,424	544,415
1962	857,334	266,992	34,660	625,002
1963	946,083	185,443	37,679	798,319
1964	1,185,380	254,511	36,364	967,233
1965	1,429,650	222,437	56,293	1,263,506
1966	1,680,014	208,909	117,748	1,588,853
1967	1,826,432	224,672	178,205	1,779,965
1968	1,722,727	216,552	163,576	1,669,751
1969	1,692,188	242,427	156,122	1,605,883
1970	1,551,777	292,086	131,826	1,391,517
1971	1,057,870	251,532	90,085	896,423
1972	1,269,302	238,135	113,998	1,145,165
1973	1,787,850	325,494	167,057	1,629,413
1974	2,165,937	410,510	270,740	2,026,167
1975	2,406,082	536,659	317,578	2,187,001
1976	2,178,265	514,942	318,304	1,981,627
1977	2,453,423	426,729	400,904	2,427,598
1978	3,142,594	533,094	715,282	3,324,782
1979	4,064,045	619,111	1,043,768	4,488,702
1980	4,812,349	734,135	1,259,802	5,338,016
1981	5,111,253	949,553	1,431,457	5,593,157
1982	3,748,911	574,567	1,217,718	4,392,062
1983(p)	2,132,649	359,037	921,083	2,694,695

p - Preliminary. r - Revised.

(a) - Production figures are those reported by domestic manufacturers in the MQ-35W. Import and export figures are taken from the Department of Commerce's "IM146" and "EM 522" report. These figures reflect data for machine tools of all values but does not include the value of used and rebuilt machines.

Source: NMTBA, "Current Industrial Reports, Metalworking Series, MQ-35W", U.S. Department of Commerce Trade Statistics.

U.S. IMPORTS OF METAL CUTTING MACHINE TOOLS AND PARTS
By Machine Classification, 1982 and 1983
(Value in Thousands of Dollars)

Machine Classification	1982		1983	
	Units	Value	Units	Value
GRAND TOTAL	1,202,511	$1,258,062(a)	1,770,995	$836,914(a)
Complete New Machines	1,190,835	$1,025,679	1,760,644	$697,015
Gear Hobbers	117	13,082	44	6,834
Gear Shapers	13	906	5	616
Gear Cutting Machines, N.E.C.	17	2,364	19	996
Vertical Mach. Ctrs. ATC, NC, Y-Axis Travel 26" or Less	1,002	81,062	1,295	90,284
Vertical Mach. Ctrs. ATC, NC, Y-Axis Travel Over 26"	122	17,093	53	6,437
Horizontal Machining Centers, ATC, NC	401	51,713	303	37,050
Machining Center, NC, N.E.C.	348	38,997	285	31,163
Single Station and Multi-Station Transfer Machines	50	7,462	7	1,640
Way Type Machines (Unit Heads)	—	—	—	—
Horiz. Boring-Drilling-Milling Machines, Table Type, NC	16	3,354	13	3,473
Horiz. Boring-Drilling-Milling Machines, NC, N.E.C.	—	—	40	8,047
Vertical Boring-Drilling-Milling Machines, NC	78	12,345	24	2,707
Horiz. Boring-Drilling-Milling Machines, non-NC	115	13,184	45	4,734
Vertical Boring-Drilling-Milling Machines, non-NC	2,550	15,379	873	6,766
Drilling Machines, NC	12	1,537	57	2,257
Drilling Machines, Multi-Spindle, non-NC	56	3,050	15	301
Drilling Machines, Radial, non-NC	825	7,405	218	1,867
Drilling Machines, Upright, Single Spindle, non-NC	138	950	101	577
Drilling Machines, non-NC, N.E.C.	286	7,769	194	4,908
Milling Machines, NC	215	15,539	221	13,559
Milling Machines, Profiling, Dupl. & Die Sinking, non-NC	167	6,717	94	4,364
Milling Machines, Knee Type, non-NC	2,902	26,780	1,538	13,301
Milling Machines, Bed Type, non-NC	190	8,556	255	4,709
Milling Machines, non-NC, N.E.C.	2,511	30,091	1,552	16,539
Vertical Boring Machines, incl. VTL's NC	46	9,275	19	3,854
Vertical Boring Machines, incl. VTL's, non-NC	166	10,340	159	6,175
Boring Machines, NC, N.E.C.	10	1,849	6	1,683
Boring Machines, non-NC, N.E.C.	159	13,095	148	7,193
Horizontal Lathes, NC, Less Than 25 HP	1,538	87,974	1,245	65,377
Horizontal Lathes, NC, 25-50 HP	706	65,599	310	26,688
Horizontal Lathes, NC, Over 50 HP	246	40,480	54	6,841
Horizontal Engine & Toolroom Lathes, non-NC	5,904	60,437	3,248	24,037
Automatic Chucking Lathes, Single Spindle, non-NC	92	1,821	98	3,620
Automatic Chucking Lathes, Multi-Spindle, non-NC	106	4,868	54	1,289
Automatic Bar Machines, Single Spindle, non-NC	148	5,552	52	1,034
Automatic Bar Machines, Multi-Spindle, non-NC	51	3,112	24	2,057
Horizontal Lathes, non-NC, N.E.C.	692	16,753	415	6,506
Vertical Lathes, excl. VTL's, NC	271	24,914	213	14,572
Vertical Lathes, excl. VTL's, non-NC	1,387	27,081	949	13,656
Gear Tooth Grinding & Finishing Machines	134	9,471	85	5,401
Tool & Cutter Grinding Machines, NC	92	5,492	26	1,684
Tool & Cutter Grinding Machines, non-NC	896	17,233	686	10,833
Honing & Lapping Machines	218	5,799	132	3,039
Grinding Machines, Flat Surface, NC	35	6,367	37	5,926
Grinding Machines, Flat Surface Reciprocating Table, non-NC	605	10,512	363	5,324
Grinding Machines, Flat Surface, non-NC, N.E.C.	1,203	21,013	697	12,405
Grinding & Polishing Machines, NC, N.E.C.	49	6,233	41	6,876
External Grinding Machines, non-NC	350	12,176	265	13,585
Internal Grinding Machines, non-NC	169	5,806	146	5,027
Grinding, Polishing & Buffing Machines, non-NC, N.E.C.	169	5,692	134	4,388
Grinding Machines, non-NC, N.E.C.	744	21,231	755	20,536
Traveling Wire Electrical Discharge Machines	257	13,822	420	17,923
All Other Electrical Discharge Machines	133	7,666	351	14,098
Spark Erosion, Ultrasonic & Electrolytic Machines, NC	58	4,484	25	3,493
Spark Erosion, Ultrasonic & Electrolytic Machines, non-NC	91	3,516	78	4,165

Footnotes at end of Table.

(Continued)

U.S. IMPORTS OF METAL CUTTING MACHINE TOOLS AND PARTS
By Machine Classification, 1982 and 1983
(Value in Thousands of Dollars)
(Continued)

Machine Classification	1982		1983	
	Units	Value	Units	Value
Metal Cutting Machine Tools, NC, N.E.C.	47	$ 9,784	25	1,778
Sawing & Cut-off Machines, non-NC	1,044	14,173	1,016	17,804
Broaching Machines, non-NC	72	6,360	14	755
Metal Cutting Machine Tools, non-NC, N.E.C.	633	31,394	438	10,918
Metal Cutting Machine Tools, Less Than $2,500	1,160,183	68,870	1,740,665	83,231
Metal Cutting Machine Tools, Used or Rebuilt	11,676	31,672	10,351	19,900
Parts	—	200,711	—	119,999

N.E.C. - Not Elsewhere Classified.

(a) The data may not add to totals due to rounding.

Source: U.S. Department of Commerce, Bureau of Census, "IM 146."

U.S. IMPORTS OF METAL FORMING MACHINE TOOLS AND PARTS
By Machine Classification, 1982 and 1983
(Value in Thousands of Dollars)

Machine Classification	1982		1983	
	Units	Value	Units	Value
GRAND TOTAL	32,550	$231,340(a)	47,202	$263,303(a)
Complete New Machines	32,064	$192,039	46,844	$224,068
Die Casting Machines	128	5,105	138	10,562
Punching & Shearing Machines, incl. Combination, NC	211	25,549	200	19,046
Shearing Machines, non-NC	597	8,025	594	10,335
Punching & Combination Punching & Shearing Machines, non-NC	704	7,993	450	6,082
Bending, Folding, Straightening & Flattening Machines, NC	58	3,491	86	7,430
Press Brakes, non-NC	341	6,328	473	8,568
Bending Rolls, Ram & Press Bending Machines, non-NC	152	3,995	144	2,767
Bending, Folding, Str. & Flattening Machines, non-NC, N.E.C.	810	17,927	799	16,112
Metal Forming Machine Tools, NC, N.E.C.	11	13,227	19	920
Mechanical Presses, non-NC	163	19,975	152	25,246
Hydraulic Presses, Vertical, Single Action, non-NC	98	3,289	105	6,500
Hydraulic & Pneumatic Presses, non-NC, N.E.C.	265	17,085	299	20,454
Headers & Upsetters, non-NC	130	11,589	66	5,822
Forging Machines, non-NC, N.E.C.	77	9,957	55	33,930
Metal Forming Machine Tools, non-NC, N.E.C.	889	33,875	1,305	45,024
Metal Forming Machine Tools, Less Than $2,500	27,430	4,591	41,959	5,231
Metal Forming Machine Tools, Used or Rebuilt	486	3,918	358	5,470
Parts	—	35,383	—	33,765

N.E.C. - Not Elsewhere Classified.

(a) The data may not add to totals due to rounding.

Source: U.S. Department of Commerce, Bureau of Census, "IM 146."

U.S. FOREIGN TRADE IN BORING MACHINES INCLUDING VERTICAL TURRET LATHES
1965 to Date
(Values in Millions of Dollars)

	Exports of Domestic Merchandise				Imports for Consumption	
	Total Exports		Manufacturers' Export Shipments (a,b)			
Year	Units	Value at U.S. Port	Units	Value F.O.B. Factory	Units	Customs Import Value (c)
1965	776	$ 11.9	174	$ 4.8	394	$ 6.1
1966	484	12.1	183	5.3	692	12.8
1967	435	13.0	177	4.8	937	21.0
1968	383	14.4	147	4.4	1,057	19.4
1969	363	11.7	121	6.2	797	21.0
1970	503	18.6	158	8.1	2,223	22.8
1971	419	11.5	139	3.8	808	11.6
1972	392	11.2	71	3.0	1,063	13.6
1973	427	10.2	NA	3.7	825	14.4
1974	328	14.1	NA	12.0	1,726	28.8
1975	566	19.7	NA	8.1	2,521	41.1
1976	393	16.3	NA	9.8E	3,219	41.0
1977	382	20.3	NA	6.5	4,824	51.7
1978	577	21.7	NA	10.2	1,347	65.9
1979	724	32.4	NA	9.5	1,901	70.7
1980	626	33.2	NA	17.7	2,289	76.9
1981	797	79.4	NA	41.5E	3,158	86.7
1982(r)	303	32.4	NA	14.9	3,140	78.8
1983(p)	193	18.5	NA	D	1,327	44.6

NA - Not Available. E - Estimate by NMTBA. p - Preliminary. r - Revised. D - Withheld to avoid disclosure.

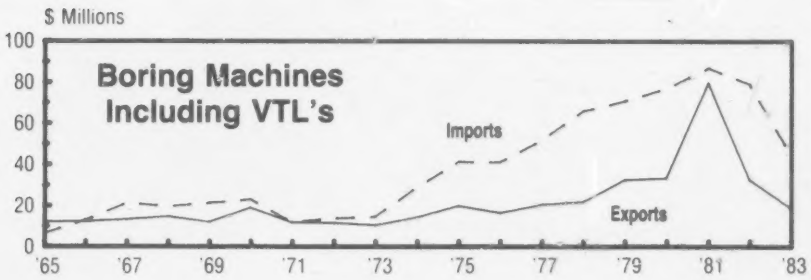
(a) Complete new machines as shipped including accessories, etc., ordered and shipped with the machines; excludes home workshop tools, etc.

(b) Manufacturers' export shipments exclude vertical turret lathes.

(c) Generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the machines to the United States.

Sources: Manufacturers' export shipments; U.S. Department of Commerce, "Current Industrial Reports, Series MQ-35W, Metalworking Machinery" (Quarterly and Annual Summaries). All other data; U.S. Bureau of the Census, "EM 522" and "IM 146."

The user should be aware that the minimum valuation of machines included in each of the three series shown on this and following tables has changed over time. "Total Exports" included all machines, regardless of value, until 1973. From 1974 through 1977 the series included only machines above $1,000. The minimum value was increased in 1978 to $2,500. "Manufacturers' Export Shipments" include machines valued less than $1,000 for all years shown. "Imports for Consumption" included all machines regardless of value through 1977. After 1977 only machines valued over $2,500 are included.



6

WORLD MACHINE TOOL INDUSTRY

For many years American Machinist magazine has been publishing estimates of the world's machine tool production and trade. These estimates, which cover 33 countries, come from unofficial sources and are revised for previous years when "official" figures become available. Whenever possible, data include complete machine tools only and exclude parts and attachments. However, for some countries it is not clear if the totals include or exclude the value of parts.

Several years ago, the trade associations of 14 European countries (co-operating through a group called CECIMO) and the United States, Japanese, and Indian trade associations agreed to develop a uniform international statistical reporting system. Under this system, the production, exports and imports of the participating countries are reported for seven major groups of metal cutting machine tools and three major groups of metal forming machine tools. Data by machine type for 1982 are included in this chapter. The machine tool production of the 16 countries totaled about $15.1 billion in 1982.

Harmonization

The United States is participating, through its International Trade Commission, in the technical work of the Harmonized Systems Committee of the Customs Co-Operation Council (CCC) in Brussels. The objective of the work of the Customs Co-Operation Council is to extend the Brussels Tariff Nomenclature (BTN) into a worldwide, uniform nomenclature for use by customs officials. Such a system has obvious advantages for market analysis and for a variety of other purposes.

Machine tools are part of Chapter 84 which is currently under consideration. The International Trade Commission has presented proposed machine tool import and export classifications to the CCC for consideration. Discussions by the CCC are currently in progress but no significant changes have yet been ratified by the Council.

Foreign Exchange Rates

With the "floating" of many world currencies, the value measurement of production and trade statistics has become increasingly difficult and confusing. Foreign data in this Handbook have been converted into dollars on the basis of the trade conversion factors given in the International Monetary Fund's "International Financial Statistics."

In the uniform international statistical reporting system for CECIMO, each participating country reports its data in Swiss Francs. In this chapter, these data have been converted into dollars with the conversion rates below the tables. These tables can be identified with the source as International Statistics on Machine Tools.

WORLD MACHINE TOOL PRODUCTION, 1967 to Date

(Millions of U.S. Dollars) (a)

	Total	Metal Cutting	Metal Forming
1967	$ 6,624.2	$ 4,894.3	$1,678.7
1968	6,543.3	4,941.2	1,552.6
1969	7,474.6	5,590.9	1,833.7
1970	8,268.2	6,069.2	2,142.0
1971	8,148.9	5,951.5	2,192.4
1972	8,965.1	6,433.1	2,532.0
1973	11,548.1	8,393.2	3,154.9
1974	12,656.3	9,190.0	3,466.3
1975	13,640.0	9,844.3	3,795.7
1976	13,387.4	9,672.5	3,714.9
1977	15,126.5	11,079.8	4,046.7
1978	19,088.4	14,192.8	4,889.4
1979	22,925.1	17,170.1	5,755.0
1980	26,501.3	20,268.4	6,232.8
1981	26,209.5	20,274.9	5,934.5
1982(r)	22,071.3	17,171.4	4,957.0
1983(p)	19,422.3	15,024.2	4,397.7

p - Preliminary. r - Revised.

(a) Metal Cutting and Metal Forming may add to less than the total because a breakdown was not available for some countries.

Source: McGraw-Hill, Inc. "American Machinist," Uniform International Statistics on Machine Tools, and statistics reported by individual countries' machine tool associations.

For many years, the "American Machinist" has published estimates of world machine tool production. When it was possible to do so, parts and attachments were excluded. Beginning with 1974, the trade associations of 13 European countries, the United States, Japan, and India have been collecting statistics on production, exports, and imports on a uniform basis. For details, see chapter introduction.

LEADING MACHINE TOOL CONSUMING NATIONS (a)
1983 and 1982

(Millions of U.S. Dollars)

Country	1983	1982	Percent Change(b)	
			U.S. Dollars	Nat'l. Currency
1. U.S.S.R.	$4,018.8	$3,876.5	3.7%	5.2%
2. United States	2,694.7	4,392.0	-38.6%	-38.6%
3. Japan	2,454.9	2,751.7	-10.8%	-14.9%
4. FRG (West Germany)	1,755.9	1,845.5	-4.9%	0.1%
5. Italy	626.3	707.3	-11.5%	-0.6%
6. France	616.0	748.9	-17.7%	-4.6%
7. PRC (China)	578.1	575.0	0.5%	5.1%
8. Rumania	529.7	668.5	-20.8%	-10.0%
9. United Kingdom	430.3	577.4	-25.5%	-14.0%
10. Canada	385.1	365.3	5.4%	5.3%
11. GDR (East Germany)	364.1	375.5	-3.0%	2.0%
12. Bulgaria	302.2	275.6	9.7%	9.7%
13. Korea	290.0	194.0	49.5%	58.6%
14. India	238.9	318.6	-25.0%	-19.9%
15. Czechoslovakia	224.9	159.2	41.3%	47.6%
16. Switzerland	211.9	259.8	-18.4%	-15.7%
17. Yugoslavia	211.8	288.4	-26.6%	35.6%
18. Sweden	192.6	201.9	-4.6%	16.4%
19. Spain	175.0	261.4	-33.1%	-12.6%
20. Taiwan	170.0	140.9	20.7%	20.7%
21. Australia	169.3	201.1	-15.8%	-5.1%
22. Hungary	156.1	154.2	1.2%	17.9%
23. Austria	151.4	187.3	-19.2%	-14.9%
24. South Africa	149.4	245.5	-39.1%	-37.5%

(a) Machine tool consumption is domestic production plus imports and minus exports.

(b) Percent change calculations based on U.S. dollars include the effect of changes in currency conversion rates. Percent change calculations based on national currency differ for some countries. These percent change values are not influenced by currency conversion rates and, therefore, may more realistically reflect changes in a nation's machine tool consumption.

Source: McGraw-Hill, Inc., "American Machinist," International Statistics on Machine Tools and NMBTA.

WORLD MACHINE TOOL PRODUCTION AND TRADE, 1983 (ESTIMATED)

(Millions of U.S. Dollars)

	Production			Trade	
	Total	Cutting	Forming	Export	Import
1. Japan	$ 3,538.0	$ 2,953.6	$ 584.4	$1,254.1	$ 171.0
2. West Germany	3,193.5	2,251.6	941.9	1,870.4	432.7
3. Soviet Union*	3,019.8	2,372.9	646.9	243.0(c)	1,242.0(c)
4. United States	2,132.6	1,584.9	547.7	359.0	921.1
5. Italy	1,047.9	722.9(a)	325.0(a)	603.4	181.8
6. GDR (East Germany)	835.2	636.6	198.6	662.1	191.0
7. Switzerland	766.5	711.7	54.8	670.9	116.3
8. France	560.1	441.0(a)	119.1(a)	295.2	351.1
9. Rumania*	487.7(c)	444.4(c)	43.3(c)	114.5(c)	156.5(c)
10. PRC (China)*	472.6(c)	351.7(c)	120.9(c)	25.1(c)	130.6(c)
11. United Kingdom	432.9	360.1	72.8	289.2	286.6
12. Czechoslovakia	382.3	331.8	50.5	264.2	106.8
13. Bulgaria*	240.5	216.4	24.0	234.0	295.7
14. Canada	231.3	169.2	62.1	54.6	208.4
15. Korea	210.0	132.0	78.0	65.0	145.0
16. Yugoslavia	208.5	146.6	61.9	133.9	137.2
17. Taiwan	193.6	181.2	12.4	137.7	114.1
18. Spain	188.2	130.7(a)	57.5(a)	99.4	86.2
19. Sweden	179.9	108.2	71.6	138.5	151.2
20. India	174.7	144.9	29.8	18.3	82.5
21. Austria	142.5	80.5	62.0	114.0	122.9
22. Hungary*	131.0	114.5	16.5	98.6	123.7
23. Brazil	123.8	92.5	31.3	18.5	42.6
24. Poland*	120.8(c)	105.2(c)	15.6(c)	42.1(c)	44.0(c)
25. Belgium	90.9	31.8	59.1	105.0	99.3
26. Israel	70.0	55.0	15.0	23.0	90.0
27. Australia	50.5(j)	32.5(j)	18.0(j)	8.8(j)	127.6(j)
28. Denmark	48.7	30.6	18.0	33.4	26.2
29. Singapore	36.7(c)	31.6(c)	5.1(c)	20.1(c)	98.0(c)
30. Argentina	31.8(c)	16.9(c)	14.9(c)	14.0(c)	42.3(c)
31. Netherlands	25.1	12.9	12.2	59.8	83.6
32. Mexico	21.0(c)	12.0(c)	9.0(c)	2.0(c)	50.0(c)
33. South Africa	14.4	5.4	9.0	0.0	135.0
34. Portugal	11.0(c)	6.0(c)	8.0(c)	2.8(c)	45.2(c)
35. Hong Kong	5.3(c)	4.5(c)	0.8(c)	1.0	8.3
Total	19,422.3	15,024.2	4,397.7	8,075.6	6,646.5

(a) Estimated by NMTBA using totals from national trade associations and AM proportional metal cutting and metal forming shares.
(c) Rough estimate from fragmentary data.
(j) Year ended June 30.

Countries with controlled currencies. The Soviet Union has been converted at 80% of the official rate; GDR has been converted at 65% of the current FRG rate; Czechoslovakia, Hungary, Poland and Romania were at the official rate; China and Bulgaria are rough estimates based on estimates of the amount of production.

Exchange Rates: All free-market currencies have been converted at rates in effect for the period covered. Most estimates for 1983 have been converted at International Monetary Fund rates for the first nine months of 1983 plus estimates of bank transfer rates for the last three months; the rest have been converted at 1983 average rates.

Notes: Whenever possible, data include machine tools only, excluding parts and attachments. Individual items may not add to totals due to rounding.

Source: McGraw-Hill, Inc., "American Machinist," and NMTBA.

PRODUCTION, EXPORTS AND IMPORTS OF MACHINE TOOLS
Selected Countries, 1980 to 1982
(Millions of U.S. Dollars)

Country	Production			Exports			Imports		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
Austria	$ 127.8	$ 108.4	$ 127.2	$ 131.3	$ 108.4	$ 121.0	$ 165.6	$ 292.1	$ 181.1
Belgium	137.2	103.3	101.0	135.1	119.2	116.2	205.6	139.5	116.9
Denmark	49.1*	41.6	35.3	85.9*	47.9	41.8	92.6*	45.1	45.0
France	953.9	809.4	564.8	516.1	390.4	295.0	554.0	566.5	479.3
India	162.7	184.6	182.9	17.5	17.1	18.2	63.6	86.6	153.9E
Italy	1,728.0	1,512.1	1,138.6	847.6	795.2	638.1	356.1	300.0	208.5
Japan	3,830.3	4,796.9	3,796.4	1,461.0	1,692.9	1,272.5	221.4	215.7	220.4
Netherlands	74.4	60.5	47.6	91.6	74.2	66.2	155.0	110.6	93.6
Norway	7.1*E	6.4E	NA	4.5*	4.2	4.6	69.6*	62.0	47.7
Portugal	28.0*E	16.2	15.7E	6.6*E	4.1	3.1E	30.0*E	53.9	37.7E
Spain	327.7	319.6	259.4	228.2	206.8	174.9	103.2	141.8	176.1
Sweden	231.7	204.8	179.9E	180.9	164.3	138.3	184.9	191.6	151.2
Switzerland	994.0	846.2	816.1	869.9	740.3	714.2	320.0*	188.9	157.6
United Kingdom	1,201.7	720.7	607.7	674.2	577.7E	477.7	622.2	432.6	408.8
United States	4,815.0	5,131.0	3,745.0	735.0	949.0	574.0	1,260.0	1,432.0	1,218.0
West Germany	4,708.1	3,953.1	3,505.0	2,964.7	2,584.9	2,206.4	802.2	616.4	488.6

NA - Not Available. E - Estimate. * Includes Parts and Accessories.

Exchange Rate: 1980 $ = 1.6757 Swiss Francs; 1981 $1 = 1.964 Swiss Francs; 1982 $1 = 2.0303 Swiss Francs.

Source: International Statistics on Machine Tools jointly prepared by CECIMO (Comite Europeen de Coopération des Industries de la Machine Outil); IMTMA (Indian Machine Tool Manufacturers' Association); JMTBA (Japan Machine Tool Builders' Association); and NMTBA.

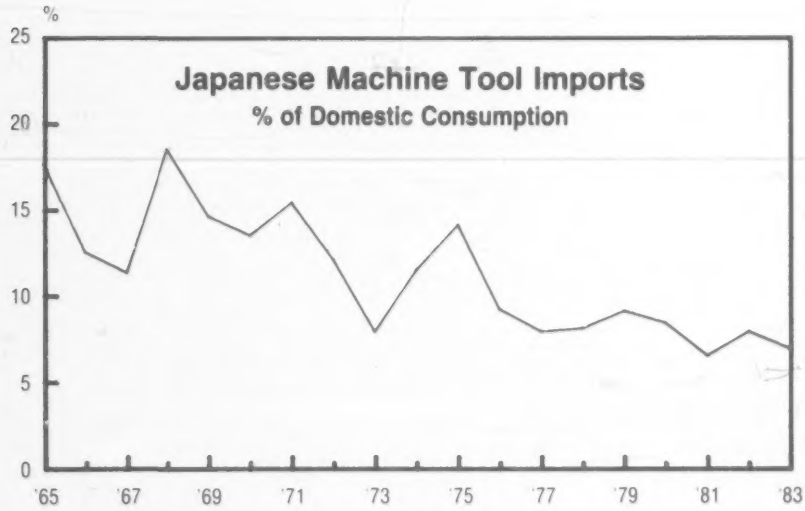
MACHINE TOOL IMPORTS AS A PERCENT OF DOMESTIC MACHINE TOOL CONSUMPTION, 1965 TO DATE

(Percent)

Year	U.S.A.(r)	Japan	United Kingdom	West Germany
1965	4.5%	17.7%	25.7%	17.8%
1966	7.4	12.6	24.3	18.0
1967	10.0	11.4	27.2	16.3
1968	9.8	18.6	28.3	21.4
1969	9.7	14.7	26.0	22.9
1970	9.5	13.6	28.7	23.8
1971	10.1	15.5	28.8	20.6
1972	10.0	12.2	29.6	22.1
1973	10.3	8.0	32.5	21.3
1974	13.4	11.6	34.1	23.7
1975	14.5	14.2	37.7	27.8
1976	16.1	9.3	40.8	27.7
1977	16.5	8.0	34.2	30.0
1978	21.5	8.2	38.3	29.9
1979	23.3	9.2	47.4	29.8
1980	23.6	8.5	45.3	32.8
1981	25.6	6.6	73.9	28.4
1982	27.7	8.0	70.0	25.4
1983	34.2	7.0	66.6	24.7

r - Revised.

Source: National Machine Tool Builders' Association and respective machine tool trade associations.



GERMAN PRODUCTION OF MACHINE TOOLS

1980 to Date

(Values in Thousands of U.S. Dollars)

Machine Classifications	1980		1981		1982		1983	
	Units	Value	Units	Value	Units	Value	Units	Value
GRAND TOTAL	233,831	$5,438,742	216,778	$4,545,215	184,967	$4,034,050	156,562	$3,681,878
Metal Cutting Total	138,655	$3,770,976	121,471	$3,145,718	89,461	$2,763,248	89,810	$2,557,399
Planing, Shaping and Broaching	886	45,317	896	52,257	658	42,134	518	27,430
Lathes	10,320	419,965	9,969	366,585	7,263	292,209	6,325	269,314
Turret Lathes, Automatic	4,562	465,188	3,801	380,690	2,855	307,676	2,487	268,548
Drilling	21,387	200,751	18,916	132,359	13,707	111,526	13,297	98,993
Milling Machines, Horizontal Boring and Milling Machines	9,115	551,649	8,568	503,112	6,831	410,129	7,763	376,006
Saws and Filing Machines	20,575	127,556	18,312	103,284	14,761	87,414	18,375	71,478
Grinding, Honing and Polishing	55,912	570,244	45,998	478,880	29,926	447,968	27,931	375,684
Gear Cutting Machines	1,240	159,065	1,337	142,610	1,043	121,130	785	97,280
Other Metal Cutting Machine Tools	14,658	766,981	13,674	614,377	12,417	605,704	12,329	626,397
Parts and Accessories	—	464,861	—	371,566	—	337,358	—	305,769
Metal Forming Total	95,176	1,667,766	95,307	1,399,498	95,506	1,270,802	66,752	1,124,479
Hammers, Forging and Riveting Machines, Bending and Straightening Machines	6,764	167,908	5,882	150,042	5,425	134,807	3,909	130,647
Mechanical Presses	9,018	295,522	8,203	252,339	9,437	193,607	10,256	157,383
Hydraulic Presses	2,466	268,862	2,095	215,548	2,113	230,467	2,279	215,142
Sheet Metalworking Machines, Including Shears	67,334	311,890	70,999	292,365	71,671	288,854	42,868	248,599
Wire Working Machines	8,670	253,970	7,171	211,965	6,409	198,912	7020	157,783
Bolt, Screw and Nut Making Machines	924	102,754	957	57,010	451	30,313	420	32,278
Parts and Accessories	—	266,859	—	220,227	—	191,842	—	182,646

Notes: German Federal Republic includes West Berlin. Totals include some unclassified items.

Exchange Rate: 1980 $1 = 1.818 Deutsche Mark; 1981 $1 = 2.260 Deutsche Mark, 1982 $1 = 2.4266 Deutsche Mark, 1983 $1 = 2.5533 Deutsche Mark.

Note: Individual items may not add to totals due to rounding.

Source: Fachgemeinschaft Werkzeugmaschinen, from official foreign trade statistics.

Detailed statistics supplied by individual countries may differ in value figures from those given in the International Statistics on Machine Tools. Problems in the conversion of national currencies into dollars and differing reporting practices probably account for most of the discrepancies.

7

EMPLOYMENT AND EARNINGS

If all the employees of the U.S. machine tool industry were to work for a single company, it would rank only about fiftieth among U.S. industrial corporations in total employment.

The industry is small, characterized by a substantial number of small and medium-sized establishments.

Employment fluctuates sharply with the fluctuations in new orders and shipments. Evidence of this is provided not only by the employment statistics but also by the labor turnover data in this chapter. These fluctuations create serious problems for the industry and for its employees. If employment has to be cut drastically, some of the highly skilled labor force is lost. When business experiences a quick upturn, there is a shortage of skilled workers. Extensive overtime is characteristic of the industry when orders are high.

To fill the gap in skilled workers, the industry sponsors training programs and NMTBA's Training Director assists Association members in solving a variety of manpower problems. However, the work force is getting older and it is becoming increasingly difficult to maintain a core of skilled workers.

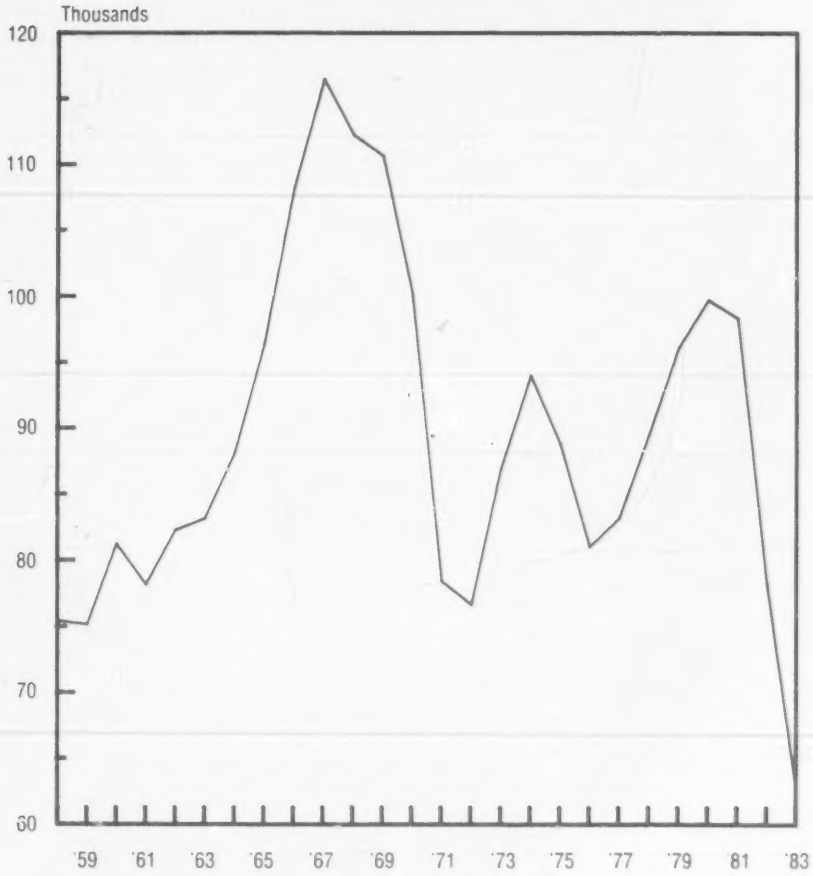
Wages in the industry are competitive with those in comparable industries. Average hourly earnings for production workers in the metal cutting machine tool segment were $9.91 in 1983. Average earnings in the metal forming sector of the industry were $10.44. The average weekly hours worked by employees in the industry were 39.0 for metal cutting workers and 38.6 for metal forming workers.

Work injury rates in metal cutting machine tool establishments are substantially lower, in lost workday cases, than the average for all manufacturing industries. The NMTBA Safety Director works closely with government agencies, industry members, and major industry customers to solve problems affecting safety and health.

Total compensation in the metal and metalworking industries in other countries has grown more rapidly than in the U.S. and in some cases is approaching equivalence. When the focus is narrowed to machine tools only, the total compensation of workers in the U.S. machine tool industry is still the highest among the major machine tool producing nations.

Most of the data in this chapter comes from the U.S. Bureau of Labor Statistics; some is from the U.S. Bureau of the Census. The regular Census data are based on complete enumerations of all workers covered; most other data are based on sample surveys. For definitions and further explanations of the terms used in this chapter see the Glossary at the end of this book.

Employment in the Machine Tool Industry
1958 to Date



Note: Estimate by NMTBA for 1977 and 1978.

Sources: U.S. Bureau of the Census. "Census of Manufactures" and "Annual Survey of Manufactures."

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AVERAGE HOURLY EARNINGS IN THE MACHINERY MANUFACTURING INDUSTRY (a) In Selected Areas by Occupation, 1978, 1981, 1983

Region and Survey Year	Occupation: Machine Tool Operators, Production				
	Class A (b)	Class B (c)	Class C (d)	Numerically Controlled (r)	Tool Room One Type Machine (r)
1. Baltimore, Md.					
Jan. 1978	$ 6.74	$ 5.79	$ 5.24	$ 5.67	$ 6.54(e)
Jan. 1981	9.01	7.84	7.01	8.45	NA
Nov. 1983	10.65	9.61	7.83	10.25	NA
2. Boston, Mass.					
Jan. 1978	6.54	6.01	4.71	6.24	6.72
Jan. 1981	8.59	8.35	5.87	8.71	NA
Nov. 1983	10.99	10.16	NA	9.99	NA
3. Buffalo, N.Y.					
Jan. 1978	6.77	6.28	5.44	7.00	6.80
Jan. 1981	8.97	8.25	7.01	9.47	7.77
Nov. 1983	10.06	8.15	7.29	11.24	10.92
4. Chicago, Ill.					
Jan. 1978	7.38	6.51	5.90	7.55	8.36
Jan. 1981	9.60	8.00	6.63	9.68	11.12
Nov. 1983	11.50	9.28	8.39	11.03	12.63
5. Cleveland, Ohio					
Jan. 1978	7.02	6.01	4.12	7.17	7.09
Jan. 1981	9.43	8.13	6.78	9.41	9.68
Nov. 1983	10.15	8.92	7.10	10.40	10.67
6. Denver, Colo.					
Jan. 1978	6.60	5.36	5.04	6.44	6.63
Jan. 1981	9.30	7.23	NA	8.61	10.68
Nov. 1983	10.41	7.92	5.83	10.26	11.32
7. Detroit, Mich.					
Jan. 1978	8.19	7.01	5.48	7.14	8.94
Jan. 1981	11.61	9.48	6.21	9.98	11.98
Nov. 1983	12.70	10.92	9.58	11.61	12.39
8. Houston, Tx.					
Jan. 1978	7.15	6.66	4.89	7.29	7.26
Jan. 1981	9.92	8.96	5.93	10.25	10.47
Nov. 1983	11.56	9.71	9.68	11.86	11.55
9. L.A.-Long Beach, Cal.					
Jan. 1978	6.87	5.45	3.96	6.86	7.44
Jan. 1981	9.38	7.39	4.83	9.79	9.70
Nov. 1983	12.71	8.38	NA	14.72	12.46
10. Milwaukee, Wis.					
Jan. 1978	7.78	6.89	NA	7.43	7.86
Jan. 1981	10.47	9.91	8.45	10.36	10.63
Nov. 1983	11.71	11.37	10.22	12.06	11.89
11. Newark, N.J.					
Jan. 1978	6.50	6.59	4.85	6.29	7.47
Jan. 1981	9.44	9.04	6.35	7.68	9.25
Nov. 1983	9.83	9.38	5.31	10.54	10.45
12. Pittsburgh, Pa.					
Jan. 1978	7.15	6.71	6.15	6.69	7.21(e)
Jan. 1981	9.44	8.80	8.14	9.38	NA
Nov. 1983	10.53	8.89	7.48	11.46	10.13
13. St. Louis, Mo.-Ill.					
Jan. 1978	8.25	6.14	6.12	7.26	8.03
Jan. 1981	9.45	8.36	8.30	9.27	9.69
Nov. 1983	11.63	9.20	7.27	11.36	12.00

NA - Not Available r - Revised

(a) Nonelectrical Machinery (SIC 35).
(b) Operators who set up their own machines and perform a variety of machine operations to close tolerances using decisions based on blueprints and layouts.
(c) Operators who set up their own machines and maintain operation set-ups made by others.
(d) Operators who perform routine and repetitive operations but do not set up machines.
(e) More than one type of machine.

SELECTED LABOR RATIOS
1961 to Date

	Payroll per Employee	Prod. Wkrs. % of Total Employment	Annual Man-Hours of Prod. Workers	Average Hourly Earnings, Prod.Workers	Value Added Per Employee	Payroll as % of Value Added	Value Added per Man Hour of Prod. Wkrs.
METAL CUTTING MACHINE TOOL INDUSTRY							
1961	$ 6,429	86%	1,999	$ 2.77	$10,020	64%	$ 7.57
1962	6,627	67	2,069	2.89	11,401	60	8.26
1963	7,171	67	2,109	3.14	11,445	62	8.08
1964	7,645	68	2,186	3.15	12,844	59	8.59
1965	7,980	68	2,219	3.27	14,033	56	9.19
1966	8,438	69	2,238	3.45	15,466	54	9.96
1967	8,714	69	2,178	3.61	15,955	54	10.55
1968	8,956	68	2,090	3.84	16,335	54	11.45
1969	9,583	66	2,097	4.11	17,451	54	12.42
1970	9,603	64	2,034	4.24	15,597	61	11.93
1971	9,872	61	1,942	4.43	15,181	65	12.71
1972	10,929	63	2,041	4.77	17,175	63	13.22
1973	11,843	65	2,092	5.01	20,268	58	14.57
1974	13,452	67	2,107	5.51	24,876	54	17.48
1975	13,539	64	2,002	5.95	26,119	51	20.07
1976	14,550	64	1,954	6.44	28,641	50	22.64
1977	15,983	63	2,054	7.08	31,445	51	24.43
1978	17,429	66	2,090	7.71	35,257	49	25.70
1979	18,873	66	2,098	8.21	41,010	46	29.55
1980	20,659	66	2,067	9.00	46,005	45	33.90
1981(r)	21,978	64	2,056	9.79	50,199	44	37.67
1982(p)	22,688	59	1,885	10.96	NA	NA	NA
METAL FORMING MACHINE TOOL INDUSTRY							
1961	$ 6,818	79%	1,905	$ 2.91	$ 9,552	71%	$ 6.37
1962	7,351	79	2,012	2.96	11,363	65	7.18
1963	7,316	71	2,189	3.10	12,728	57	8.13
1964	7,839	72	2,269	3.20	13,847	56	8.40
1965	8,058	72	2,243	3.34	13,686	58	8.40
1966	8,623	73	2,267	3.46	15,214	56	9.11
1967	8,547	71	2,210	3.57	14,972	57	9.46
1968	8,810	69	2,211	3.66	16,247	54	10.56
1969	9,664	69	2,185	4.05	16,182	59	10.68
1970	9,709	69	2,159	4.08	16,249	59	10.82
1971	9,897	65	2,056	4.33	14,913	66	11.06
1972	11,012	68	2,090	4.72	17,331	63	12.03
1973	11,985	70	2,211	4.90	20,240	59	13.07
1974	12,786	70	2,133	5.50	21,851	58	14.63
1975	13,196	68	2,022	5.81	23,780	55	17.27
1976	14,707	69	2,012	6.69	27,122	54	19.40
1977	15,219	68	2,037	6.69	30,460	50	22.01
1978	16,492	68	2,065	7.21	33,385	49	23.97
1979	17,985	69	2,005	8.14	37,185	48	26.77
1980	19,112	68	1,934	8.90	38,740	49	29.61
1981	20,700	67	1,925	9.57	40,688	51	31.70
1982(p)	22,513	62	1,926	10.54	NA	NA	NA

p - Preliminary NA - Not Available r - Revised

Source: 1963, 1967, 1972, 1977, 1982: U.S. Bureau of the Census, "Census of Manufactures," 1977 Industry Series: "Metalworking Machinery and Equipment," MC 77-1-35C and earlier years. Other Years: U. S. Bureau of the Census, "Annual Survey of Manufactures" (Annually).

AVERAGE HOURLY EARNINGS AND SUPPLEMENTARY LABOR COST
In the Machine Tool Industry of the United States and Seven Foreign Countries

Country	Date	Industry	Workers Covered	Average Hourly Earnings	Estimated Supplementary Labor Cost	Total Compensation
Sweden	1982	(3)	P.W.	$6.21	$3.84	$10.05
France	1982	(3)	P.W.	4.79	3.64	8.43
Germany (Federal Republic)	1982	(3)	P.W.	6.33	4.61	10.94
Italy	1982	(3)	P.W.	4.03	3.56	7.59
Switzerland	1982	(2)	P.W.	8.05	3.21	11.26
United Kingdom	1982	(3)	P.W.	5.07	1.86	6.93
Japan	1982	(1)	P.W.	5.64	95(3)	6.59
United States	1982	(1)	P.W.	9.55	3.27	12.82

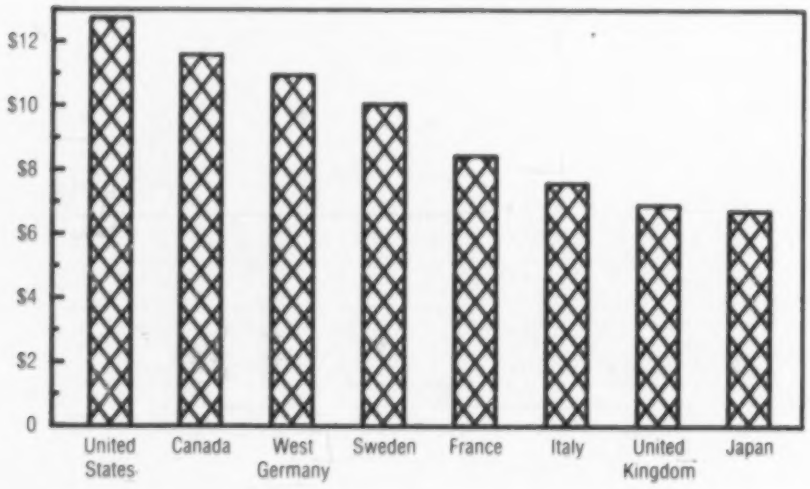
P.W. - Production Workers.

(1) Machine Tools.
(2) Metals and Machines.
(3) Non-Electrical Machinery.

Source: U.S. Bureau of Labor Statistics, Branch of International Comparisons.

This table differs from the one shown in chapter 2 because it focuses directly on the machine tool industry compensation. The other table shows production woker compensation in manufacturing as a whole.

Average Hourly Compensation of Production Workers
Machinery, Except Electrical, 1981



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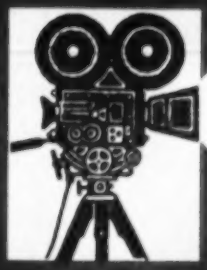
This colorful film shows young, successful metalworking industry employees—operators, programmers, assembly technicians, service engineers and supervisors—describing their work, their career progress and their life styles. In addition, the motion picture covers what machine tools are and their importance to our nation's industrial achievements.

Collateral handout materials to reinforce the film's message are also available free of charge. To arrange for free loan of the career information film, contact Modern Talking Picture Service, Inc., Scheduling Center, 5000 Park Street North, St. Petersburg, Florida 33709.



national machine tool builders association

The future of industry depends on new employees

8

FINANCE

Publicly available data on the financial status of the machine tool industry is scarce. A few sources are the annual reports of the publicly owned machine tool companies and of other companies that produce machine tools. Government statistics on the capital expenditures for "structures and additions" and for "machinery and equipment" in the metal cutting and metal forming machine tool industries are an indirect measure of financial health.

Selected financial indicators for a machine tool composite from the "Industry Surveys" of Standard and Poor's Corporation are included in this chapter. The machine tool composite combines data for six relatively large machine tool building companies on the basis of the total market value of equity stock outstanding.

Each indicator from "Industry Surveys" is an index based on average value per share of outstanding stock. We have converted these indicators from the original base of 1941—1943 = 10 to 1967 = 100 to conform with other indexes in this publication. The financial indicators for the composite do not necessarily represent an average for the entire machine tool industry, but given the scarcity of financial information, are a valuable addition to this chapter.

Data collected by an outside research group for the National Machine Tool Builders' Association indicate that the rate of profit of machine tool manufacturers tends to be somewhat higher than that of all manufacturing industries during good times, but drastically worse in less prosperous periods.

It should be emphasized that all the data in this section are in current dollars and that in periods of rapid inflation the true state of earnings and capital accumulation is seriously distorted. In particular, an inflationary environment leads to the overstatement of "inventory profits" and the understatement—relative to replacement costs—of depreciation charges on capital equipment.

SELECTED FINANCIAL RATIOS FOR CORPORATIONS IN SELECTED INDUSTRIES, 1983

Industry	% Net Operating Profit on Sales	% Earnings After Taxes on Sales	% Earnings After Taxes On Net Worth	% Depreciation and Amortization on Net Sales	Times Inventory Turnover	Times Current Assets to Current Liabilities
Machine Tools	(7.9)	(6.3)	(8.0)	4.0	2.5	3.1
All Manufacturing Corporations	5.9	4.1	10.7	3.8	6.9	1.6
Durable Manufactures	5.0	3.1	8.3	3.9	5.3	1.7
Electrical Machinery	5.1	3.8	10.2	3.4	5.0	1.6
Machinery, Except Electrical	6.4	4.4	8.2	4.9	4.6	1.9
Motor Vehicles	5.4	4.9	19.2	4.5	11.6	1.3
Chemical and Allied Products	7.3	5.8	12.2	4.3	6.9	1.7

( ) - Negative Number

Source: Federal Trade Commission, "Quarterly Financial Report for Manufacturing Corporations" and NMTBA

GROSS BOOK VALUE OF DEPRECIABLE ASSETS (a)
Machine Tool Industry, 1962 to Date
(Millions of Dollars)

Year	Total	Metal Cutting Industry			Metal Forming Industry		
		Total	Structure and Additions	Machinery and Equipment	Total	Structure and Additions	Machinery and Equipment
1962	$ 722	$ 519	NA	NA	$203	NA	NA
1963	743	531	NA	NA	212	NA	NA
1964	800	558	NA	NA	242	NA	NA
1965	NA	NA	NA	NA	NA	NA	NA
1966	NA	NA	NA	NA	NA	NA	NA
1967	1,099	800	$245	$ 555	299	$ 88	$211
1968	1,161	845	253	592	316	94	222
1969	1,224	889	269	620	335	98	237
1970	1,235	884	270	614	351	109	242
1971	1,241	874	272	602	367	114	253
1972	1,228	841	263	578	387	120	267
1973	1,251	851	259	592	400	121	279
1974	1,324	895	260	635	429	131	298
1975	1,356	937	266	671	419	125	294
1976	1,412	1,000	279	721	412	127	285
1977	1,478	1,035	295	740	443	129	314
1978	1,603	1,115	330	785	488	138	350
1979	1,899	1,333	372	961	566	160	406
1980	2,065	1,453	417	1,036	612	168	444
1981	2,263	1,627	463	1,164	636	180	456

NA - Not Available

(a) Includes all fixed depreciable assets on the books of establishments at year end. Values represent actual cost of assets at the time they were acquired. Total includes all buildings, structures, machinery and equipment. Machinery and equipment includes production, office and transportation equipment.

Source: U.S. Bureau of the Census, "Annual Survey of Manufactures."

9

MACHINE TOOLS IN USE

American Machinist magazine has been conducting surveys of metalworking equipment in use by American industry for over 50 years - a total of 13 complete Inventories. Through the years the impact of advancing technology, shifting industrial classifications and improved statistical techniques have brought about changes in procedures for compilation and publication of inventory data.

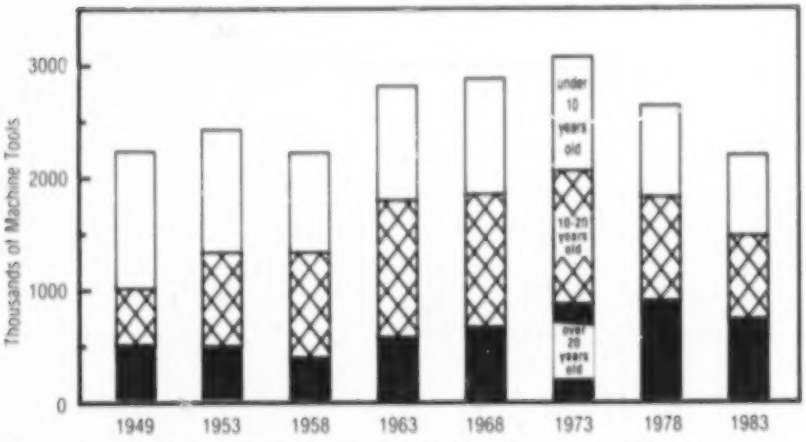
Through 1973, the Inventory was conducted every five years covering all the metalworking industries. The 12th Inventory was conducted over a period of three years with approximately one-third of metalworking surveyed each year from 1976 to 1978. The latest Inventory, the 13th of the series, returned to the format employed in the first eleven, i.e. surveying all metalworking industries in one year. The 13th Inventory was conducted in 1983 and its results were published late in the year. All of the tables and charts in this chapter have been updated to reflect this latest compilation.

The American Machinist Inventory is based on a sample survey and it is the nature of such surveys that the reliability of the data is greatest in the broader categories. The survey's reliability necessarily decreases as results are broken down into smaller and smaller cells. A broad breakdown, such as "grinding machine tools in the North Central States," will therefore tend to be more reliable than a very detailed breakdown such as "circular saws, over 20 years old, in New Mexico and Texas." Another limitation is the coverage of the survey. While the data compiled are believed to accurately reflect the number and types of machine tools in use in U.S. metalworking industries, the user should be aware of the sample's limitations. For all but the 12th Inventory, all of metalworking manufacturing was surveyed to arrive at tabulated results. In the 12th Inventory, estimates were made for metalworking plants with fewer than twenty employees as these establishments were not surveyed. Tables containing these estimates are so noted. Secondly, the coverage of the survey is based on employment totals, not the number of plants. For example, in the 1983 Inventory, the number of plants responding to the survey comprised only 7% of the total number of establishments with more than twenty employees recognized by the U.S. Bureau of Census. However, this 7% represented an employee base of approximately 25% of metalworking employment. This level of representation bolsters the survey's reliability.

Also included in this chapter is a chart of Inventory data showing the number of machine tools in use in seven industrial nations and their average age distribution. This chart brings to light the fact that while the U.S. has a very large stock of machine tools it is also a relatively old, somewhat obsolescent stock.

Additional information concerning the American Machinist Inventory may be obtained from Manufacturing Research Institute of American Machinist, 1221 Avenue of the Americas, New York, New York 10020.

Machine Tools in Use in Metalworking Industries



Source: American Machinist, "12th Inventory of Metalworking Equipment, 1976-1978."

TOTAL MACHINE TOOLS IN THE UNITED STATES
Estimated Number, 1983

Use or Location	Total	Metal Cutting	Metal Forming
TOTAL	2,896,754	2,247,833	648,921
Metalworking Industries (a)	2,192,754	1,702,833	489,921
Other Industries	380,000	275,000	105,000
Training	74,000	70,000	4,000
In Storage and Surplus	250,000	200,000	50,000

(a) As used here, metalworking industries are: furniture industry (SIC 25), primary metals industry (SIC 33), fabricated metal products industry (SIC 34), non-electrical machinery industry (SIC 35), electrical machinery industry (SIC 36), transportation equipment industry (SIC 37), precision instruments industry (SIC 38), and miscellaneous manufacturing industry (SIC 39).

Source: American Machinist, "13th Inventory of Metalworking Equipment, 1983."

MACHINE TOOLS IN USE
Metalworking Industries, 1983
(Number in Thousands and Percent of Total)

Year Industry	Total	By Age: Under 10 Years		By Age: 10-19 Years		By Age: 20 Years and Over		With Numerical Control	
		Number	%	Number	%	Number	%	Number	%
TOTAL	2,192.8	717.9	32.7	746.4	34.0	728.5	33.2	103.3	4.7
Metal Furniture, Fixtures	26.6	6.9	26.0	11.3	42.3	8.4	31.7	0.6	2.3
Primary Metals	117.8	34.4	29.2	39.6	33.6	43.8	37.2	2.7	2.3
Fabricated Metal Products	518.9	149.4	28.8	179.3	34.5	190.3	36.7	14.5	2.8
Fab. Structural Metal Products	120.3	41.7	34.7	42.1	35.0	36.5	30.3	4.3	3.6
Screw Machine Products	85.7	21.6	25.2	31.3	36.5	32.8	38.3	1.4	1.6
Metal Stampings	96.2	23.6	24.6	32.3	33.6	40.3	41.9	1.9	1.9
Other Fab. Metal Products	216.8	62.4	28.8	73.6	33.9	80.8	37.3	6.9	3.2
Non-Electrical Machinery	805.3	285.3	35.4	272.4	33.8	247.6	30.7	52.5	6.5
Metalworking Machinery	202.0	74.1	36.7	68.1	33.7	59.8	29.6	11.8	5.8
Machine Tools	49.2	12.6	25.7	14.4	29.2	22.2	45.1	3.4	6.9
Special Industry Machy.	80.4	24.1	29.9	27.1	33.8	29.2	36.3	4.0	5.0
General Industrial Machy.	110.0	31.9	29.0	39.5	35.9	38.6	35.1	5.8	5.3
Other Non-Elec. Machy.	412.9	155.3	37.6	137.6	33.3	120.0	29.1	30.9	7.5
Electrical Machinery	245.7	85.3	34.7	90.9	37.0	69.4	28.3	10.8	4.4
Elec. Industrial Apparatus	41.4	13.8	33.2	15.0	36.3	12.6	30.5	1.8	4.3
Communications Equipment	36.6	14.0	38.4	13.6	37.1	9.0	24.5	2.6	7.1
Other Elec. Machinery	167.7	57.5	34.3	62.3	37.2	47.8	28.5	6.4	3.8
Transportation Equipment	303.0	89.0	29.4	92.7	30.6	121.2	40.0	15.3	5.0
Motor Vehicles Equip.	153.2	38.9	25.4	46.8	30.5	67.6	44.1	4.1	2.7
Aircraft and Parts	97.7	34.2	35.0	33.3	34.1	30.2	30.9	6.8	9.0
Other Trans. Equip.	52.0	15.9	30.6	12.6	24.2	23.5	45.2	2.4	4.6
Precision Instruments	109.6	41.3	37.7	40.0	36.5	28.3	25.8	4.9	4.4
Misc. Mfg. Industries	65.9	26.2	39.7	20.2	30.7	19.5	29.6	2.1	3.2

Note: Individual items may not add to totals due to rounding.

Source: American Machinist, The 13th American Machinist Inventory of Metalworking Equipment, 1983.

MACHINE TOOLS IN USE IN METALWORKING INDUSTRIES
By Major User Industry, 1983
(Number in Thousands)

Using Industry	Total Machine Tools: Number	Total Machine Tools: %	Metal Cutting Machines: Number	Metal Cutting Machines: % Under 10 Yrs. Old	Metal Forming Machines: Number	Metal Forming Machines: % Under 10 Yrs. Old
TOTAL	2,192.8	100.0%	1,702.8	34%	489.9	27%
Furniture & Fixtures	26.6	1.2%	10.8	34%	15.9	21%
Primary Metals Industries	117.8	5.4	88.5	30	29.3	29
Fabricated Metal Products	518.9	23.7	326.0	32	192.9	25
Ordnance & Accessories	24.3	1.1	20.7	20	3.7	18
Non-Electrical Machinery	805.3	36.7	714.8	36	90.5	30
Electrical Machy. & Equipment	245.7	11.2	177.9	36	67.7	31
Transportation Equipment	303.0	13.8	248.6	30	54.4	27
Precision Instruments	109.6	5.0	91.3	38	18.3	33
Miscellaneous Mfg. Industries	65.9	3.0	45.0	47	20.9	23

Source: American Machinist, 13th Inventory of Metalworking Equipment, 1983.

MACHINE TOOLS IN USE IN METALWORKING INDUSTRIES
By Major Type and Age, 1983

Type of Machine Tool	Plants With	Total Units	Change Since '78	Percent of Total	0-4 Years	5-9 Years	10-19 Years	20 Years and Over
GRAND TOTAL	—	2,192,754	8%	100.0%	13%	20%	34%	33%
Non-NC Grinding Machines	75%	383,027	0%	17.5%	14%	22%	34%	31%
Non-NC Turning Machines	77	332,327	14	15.2	10	16	35	40
Non-NC Drilling Machines	74	281,453	18	12.8	10	18	36	36
Non-NC Milling Machines	74	218,479	5	10.0	12	20	36	32
Mechanical Presses	43	198,973	15	9.1	6	14	36	45
Cutoff & Sawing Machines	86	169,107	5	7.7	17	28	33	22
Non-NC Bending & Forming	41	77,285	2	3.5	11	19	38	32
Non-NC Punching & Shearing	41	66,363	9	3.0	11	20	37	32
Hydraulic Presses	38	53,292	5	2.4	14	22	34	30
Honing, Lapping, Polishing	33	50,626	NA	2.3	12	23	35	30
Non-NC Boring Machines	28	40,462	17	1.8	8	11	34	47
Gear-cutting & -finishing	10	34,834	11	1.6	7	11	32	50
NC Turning Machines	26	33,352	236	1.5	58	28	11	3
Tapping Machines	24	28,139	1	1.3	13	25	36	26
Machining Centers	19	24,003	26	1.1	58	26	15	1
Forging Machines	6	19,613	4	0.9	6	11	30	54
Pneumatic Presses	8	17,656	NA	0.8	18	30	37	16
Broaching Machines	18	16,505	20	0.8	11	15	29	45
NC Milling Machines	16	15,929	209	0.7	44	27	22	6
Station-Type Machines	5	13,588	25	0.6	16	20	32	31
Electrical-Machining Units	14	12,434	9	0.6	31	28	35	6
Other Non-NC Metal Cutting	4	12,075	NA	0.6	12	18	37	34
Threading Machines	13	11,703	5	0.5	8	17	37	38
Other Non-NC Metalforming	3	11,255	67	0.5	6	18	36	40
Coil-Processing Systems	6	10,852	78	0.5	13	25	35	27
Thread-Rolling Machines	5	8,604	36	0.4	9	17	31	43
Diecasting Machines	2	8,095	21	0.4	12	24	44	20
NC Drilling Machines	9	7,993	134	0.4	21	29	43	8
Multiple-Side Forming Mach	2	7,003	45	0.3	7	21	35	38
NC Punching & Shearing	8	6,223	277	0.3	37	29	26	8
Non-NC Thermal Cutting	8	5,302	61	0.2	28	33	26	14
NC Boring Machines	7	5,064	68	0.2	29	22	33	17
Other NC Metalcutting	2	3,121	652	0.1	19	25	13	43
NC Bending & Forming	3	2,585	21	0.1	33	26	27	15
NC Grinding Machines	3	2,276	734	0.1	50	21	22	7
Sheet - Plate-processing	2	1,634	NA	0.1	15	25	24	37
NC Thermal Cutting	3	1,034	NA	0.1	53	29	8	9
Other NC Metalforming	(a)	488	75	(b)	47	18	22	14

NA - Not Available

(a) Percentage is less than 1%.

(b) Percentage is less than 0.1%.

Source: American Machinist, 13th Inventory of Metalworking Equipment, 1983.

EXPLANATION OF TERMS

ACCESSIONS
.....See LABOR TURNOVER

AIRCRAFT, MISSILES AND PARTS
.....Industry Group, conforming to the Standard Industrial Classification. Consists of Industry Group, SIC 372, Aircraft and Parts, and SIC 376, Establishments Primarily Engaged in Manufacturing Complete Guided Missiles and Space Vehicles and Parts.

ASSETS, NET
.....Total net assets are the sum of all recorded assets after reducing such amount by allowance or reserve for bad debts, depreciation and amortization, but before deducting any liabilities, mortgages or other indebtedness.

AVERAGE HOURLY EARNINGS
.....See EARNINGS

AVERAGE STRAIGHT-TIME HOURLY EARNINGS
.....See EARNINGS

AVERAGE WEEKLY HOURS
.....See HOURS, AVERAGE WEEKLY

AVERAGE WEEKLY EARNINGS
.....See EARNINGS

BACKLOG
.....See ORDERS, UNFILLED

CANCELLATIONS
.....Gross new orders less cancellations equal net new orders in the order data of NMTBA. Cancellation provisions are usually specified in purchase orders.

CAPACITY UTILIZATION
.....There are seven different series on capacity utilization. The most widely used are the indexes published by the Federal Reserve Board, the U.S. Department of Commerce's Bureau of Economic Analysis and McGraw-Hill Publications. Though their statistical methodology varies, each of these indexes attempts to present a measure of current physical industrial output levels as they compare to the potential level of output if all available productive facilities were in full use. Some series measure utilization according to absolute output potential while others measure utilization relative to that portion of absolute capacity which management prefers. While these differences lead to divergent index numbers, quite often the relative changes of the different indexes parallel each other.

CAPITAL EXPENDITURES
.....See PLANT AND EQUIPMENT

CAPITAL GOOD INDUSTRIES
.....This category is defined as the Nonelectrical Machinery industry, exclusive of farm machinery and equipment producers and machinery shops, the Electrical Machinery industry, exclusive of household appliances and electronic components manufacturers, and the non-defense portion of the following industries: Shipbuilding and Repairing, Railroad Equipment, Communication Equipment, Aircraft and Parts, and Ordnance plus Defense Products.

COMPENSATION
.....See EARNINGS; PAYROLL

COMPENSATION, SUPPLEMENTARY
.....Supplementary compensation statistics fall into two broad categories and are intended to capture

An establishment is primarily engaged in the machine tool industry if the value of machine tools produced exceeds in value the production of products of other industries.

Because many establishments classified as being within the machine tool industry produce not only machine tools (their "primary products") but also other products (their "secondary products"), the "machine tool industry" figures do not measure machine tool activities only. In 1972, for instance, only 86 per cent of the value of shipments of the "metal cutting machine tool industry" consisted of metal cutting machine tools. The most important other products shipped were machine tool accessories and measuring devices.

While not all the shipments of the machine tool industry were made up of machine tools, some other industries did produce machine tools as their "secondary products." The 1972 Census of Manufactures showed that 90 per cent of all metal cutting machine tools were produced by the "metal cutting machine tool industry." The remaining 10 per cent were shipped by other industries. The "machine tool industry" statistics are important because they permit a measurement of the economic status of the plants which make machine tools their major business—their location, employment, payroll, etc. They are less reliable if we want to measure total machine tool production and shipments. To get the facts on total machine tool production, we should look at "Shipments"—see separate entry.

MACHINE TOOL PRODUCTS
.....See SHIPMENTS

MACHINE TOOL SHIPMENTS
.....See SHIPMENTS

MACHINE TOOLS, COMPLETE
.....Machine tools (See MACHINE TOOLS, DEFINITION) as shipped, including all accessories, attachments, and numerical controls that are ordered and shipped with the machines.

MACHINE TOOLS, DEFINITION
.....Machine tools are either metal cutting machines or metal forming machines.

METAL CUTTING TYPES
.....of machine tools are power driven machines, not supported in the hands of an operator when in use, that shape metal by cutting or use of electrical techniques. Machine tools of the metal cutting type are classified under SIC product codes, the first four digits of which are 3541.

METAL FORMING TYPES
.....of machine tools are power driven machines, not supported in the hands of an operator while in use, for pressing, forging, hammering, extruding, shearing, bending or die casting metal into shape. Machine tools of the metal forming type are classified under SIC product codes, the first four digits of which are 3542.

MACHINERY, EXCEPT ELECTRICAL
.....See NONELECTRICAL MACHINERY

MACHINERY AND EQUIPMENT INDUSTRIES
.....are classified as a supplementary market category for manufacturers' orders, inventories and shipments. The other categories are "consumer durables" and "defense products." (See separate item—DEFENSE.)

.....MACHINERY AND EQUIPMENT INDUSTRIES CATEGORY, consists of:
.....nonelectrical machinery
.....See NONELECTRICAL MACHINERY, but excluding farm machinery and machine shops;
.....electrical machinery
.....See ELECTRICAL MACHINERY, but excluding household appliances, communication equipment and electronic components; shipbuilding and repairing; and railroad and streetcar equipment.

MAJOR USERS—MAJOR USER CATEGORIES
.....The major users of machine tools are the nonelectrical machinery industry, the fabricated metal products industry, the electrical machinery and equipment industry and other industry groups (see individual industry groups) listed in the inventory section of this volume.

MAN-HOURS
.....All plant man-hours of production and related workers. Represents all man-hours worked or paid

STRUCTURE AND ADDITIONS
.....See PLANT AND EQUIPMENT.

SUPPLEMENTARY BENEFITS
.....See COMPENSATION, SUPPLEMENTARY

TAXES
.....See INCOME TAXES

TRANSPORTATION EQUIPMENT
.....The Major Group SIC 37, Transportation Equipment, consists of SIC Groups.
.....371. Motor Vehicles and Motor Vehicle Equipment
372. Aircraft and Parts
373. Ship and Boat Building and Repairing
374. Railroad Equipment
375. Motorcycles, Bicycles and Parts
376. Guided Missiles and Space Vehicles and Parts
379. Miscellaneous Transportation Equipment

Each major group or industry group consists of the establishments classified according to their major activity.

UNFILLED ORDERS
.....See ORDERS, UNFILLED

UNIT LABOR COST
.....Unit labor cost is arrived at by dividing compensation per man-hour by output per man-hour.

VACATIONS, PAID
.....See COMPENSATION, SUPPLEMENTARY

VALUE ADDED
.....Value added by manufacture is derived by subtracting the total cost of materials (including materials, supplies, fuel, electric energy, cost of resales and miscellaneous receipts) from the value of shipments (including resales) and other receipts, and adjusting the resulting amount by the net change in finished products and work-in-process inventories between the beginning and end of the year.

Value added by manufacture avoids the duplication in the value of shipments figure which results from the inclusion of the shipments of establishments producing materials and components along with the shipments of establishments producing finished products.

VALUE, IN FOREIGN COUNTRY
.....See IMPORTS INTO THE UNITED STATES

VALUE, AT PORT
.....See EXPORTS OF DOMESTIC MERCHANDISE

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Senator PRESSLER. Thank you very much, Mr. Harris. I know that Jim Mack has told me that you are very active in product liability efforts. That is something I think we need to also work on. We appreciate your involvement and your testimony.

Next, I shall call on Jack Dinos, chairman of the Southern Tea Co. of Marietta, GA.

STATEMENT OF JACK A. DINOS, CHAIRMAN, SOUTHERN TEA CO., MARIETTA, GA

Mr. DINOS. Mr. Chairman, Southern Tea Co. is a tea packer which began its operations in Atlanta, GA, in 1958 as a division of a company called Mocha Coffee Co. This was a 50-year-old food service coffee roaster. When the parent company was sold in 1968, the executive management retained ownership of the Southern Tea division, and today Southern Tea's ownership and management includes third and fourth generations of the parent company's founding family.

Twenty-seven years after its inception, Southern Tea Co. ranks as one of the four largest tea companies in America and is the largest devoted exclusively to the manufacture and distribution of private label tea products. We pack for chain stores. We pack for food service companies which market their own brand. We are not a brand marketer ourselves.

From 1958, Southern Tea Co. has grown on a consistent basis, and this growth has necessitated three major plant moves. As a nonmarketing manufacturer which carries extensive inventories for its customers, ours is a capital intense business. Being privately held, funds for growth have been limited primarily to retained earnings, an ESOP, and borrowed capital. Southern Tea has traditionally operated from buildings owned and leased to it by its owners who, prior to a major expansion planned in 1978, had been able to adequately fund and provide facilities.

The expansion planned in 1978 called for the construction of a 17,000-foot office building and a 150,000-square-foot manufacturing and distribution facility. These were to be built on approximately 9 acres of land in Marietta, GA. This expansion did not include our vacating the facilities that we had in Atlanta as was the case in the previous moves. Therefore, funds from the sale of that facility were not available for buying land and financing construction through conventional means. We investigated long-term leasing and joint venture development with commercial developers and, in both cases, the rent for that type of commercially funded facility would have been prohibitive. We would not have been able to acquire the size facility that we thought we needed to foster our expansion.

Using proceeds from a tax exempt industrial development bond issued by the Development Authority of Cobb County, we were able to acquire the land and build the buildings in our proposed 1978 expansion plan. The tax exempt nature of the industrial development bond enabled us to obtain funds at 2.5 percent below the then-current interest rate for conventional financing. That will reduce our interest cost and rental expense during the repayment period by over $1 million.

In 1983, a second industrial development bond was issued, and we built an additional 12,000 feet of office space and 70,000 feet of manufacturing warehouse space. The tax exempt status of the funds we borrowed to complete our latest expansion will save us approximately $0.5 million based on the current cost of conventional financing.

Our company's sales, since occupying the facilities provided through the industrial development bond financing, have increased by 60 percent. Our payroll has increased by 40 percent, and approximately 70 new jobs have been created. Though the new facilities have enabled us to produce more efficiently, without industrial development bond financing, our company would not have been able to experience this growth or provide the other employment.

As I have mentioned in the foregoing, it has been very helpful to our company to have industrial development bond financing available. It has reduced our expansion costs, making it possible to expand and modernize our facilities, increase our employment, and, more importantly, remain competitive in the marketplace.

It is also significant that in our community, the Development Authority of Cobb County has been instrumental in enhancing the local economy by helping new and expanding companies add nearly $200 million of facilities and over 10,000 jobs since it was created in 1972. These firms and their employees support the economy through the paying of local taxes, State taxes, and Federal taxes, and by buying goods and services locally and nationally.

In summary, tax exempt financing has been a real advantage to our company and our community, and we feel strongly that it should be allowed to continue.

Thank you.

[The prepared statement of Mr. Dinos follows:]

southern tea company
1267 COBB INDUSTRIAL DRIVE • MARIETTA, GEORGIA 30066-6699 • (404) 428-5555 • TWX 810-763-4712

(STATEMENT BY
(JACK A. DINOS, CHAIRMAN, EXECUTIVE COMMITTEE & CEO
(SOUTHERN TEA COMPANY, 1267 COBB IND. DR., MARIETTA, GA 30066
(BEFORE SUBCOMMITTEE ON FAMILY FARMS
(SENATE SMALL BUSINESS COMMITTEE
(MAY 22, 1985

Mr. Chairman:

Southern Tea Company is a tea packer which began its operations in Atlanta, Georgia in 1958, as a division of the Mocha Coffee Company, a 50 year old foodservice coffee roaster. When the parent company was sold in 1968, the Executive Management retained ownership of Southern Tea, and today Southern Tea's ownership and management includes third and fourth generation of the parent company's founding family.

Twenty-seven years after its inception, Southern Tea ranks as one of the four largest tea companys in the United States, and it is the largest devoted exclusively to the manufacturing and distribution of private label and generic tea bags.

From 1958, Southern Tea has grown on a consistant basis, and this growth has necessitated three major plant moves. As a non-marketing manufacturer which carries extensive inventories for its customers, ours is a capital intense business. Being privately held, funds for growth have been limited primarily to retained earnings, an ESOP, and borrowed capital. Southern Tea had traditionally operated from buildings owned and leased to it by its owners who, prior to a major expansion planned in 1978, had been able to adequately provide facilities.

The expansion planned in 1978 called for the construction of a 17,000 square foot office building and a 150,000 square foot building for manufacturing and distribution built on approximately 9 acres of land located in Marietta, Georgia. This expansion did not include our vacating the facilities occupied in Atlanta as was the case in the two previous moves; therefore, funds from the sale of that facility were not available for acquiring land and financing construction through conventional means. We investigated long-term leasing and a joint venture development with a commercial developer and, in both cases, our rent would have been prohibitive.

Using proceeds from a tax-exempt industrial development bond issued by the Development Authority of Cobb County, we were able to acquire the land and build the buildings in our proposed 1978 expansion plan. The tax-exempt nature of the industrial development bond enabled us to obtain funds at 2-1/2% below the then current rate for conventional financing. This will reduce our interest cost and rental expense during repayment by over one million dollars. In 1983, a second industrial development bond was issued and we built an additional 12,000 square feet of offices and 70,000 square feet of manufacturing/warehouse space. The tax-exempt status of the funds we borrowed to complete our last expansion will save us an additional one-half million dollars based on the current cost of conventional financing.

Our Company's sales, since occupying the facilities provided through industrial development bond financing, have increased by over 60%, and our payroll has increased by over 40%. Approximately 70 new jobs have been created. Though the new facilities have enabled us to produce more efficiently, without industrial development bond financing, our Company would not have been able to experience this growth or provide added employment.

As I have mentioned in the foregoing, it has been very helpful to our Company to have industrial development bond financing available. It has reduced our expansion costs, made it possible to expand and modernize our facilities, increase our employment and most importantly remain competitive in the market place.

It is also significant that in our community the Development Authority of Cobb County has been instrumental in enhancing the local economy by helping new and expanding companies add nearly two-hundred million of facilities and over ten-thousand jobs since it was created in 1972. These firms and their employees support the economy through the paying of local, state and federal taxes, and by buying goods and services locally and nationally.

In summary, tax exempt financing has been a real advantage to our Company, our community and the nation, and should be allowed to continue. Thank you.

Senator PRESSLER. Thank you very much.

Senator D'Amato has arrived. Senator D'Amato, if you wish to make an opening statement, you are welcome to do so or you may wait until the next panel.

STATEMENT OF HON. ALFONSE M. D'AMATO, A U.S. SENATOR FROM THE STATE OF NEW YORK

Senator D'AMATO. Mr. Chairman, I have another committee hearing, but let me simply say this, and I will ask that my remarks be entered into the record in their entirety, with your permission.

First of all, I want to commend you for calling this hearing to review the small issue IDB Program. I think historically, the IDB Program has helped provide funds to provide the jobs that never would have been created. I think in the area of municipal services it has played and will continue to play a very important role.

The fact is that if some of the Treasury proposals are adopted, we are going to be setting the clock back. We are going to be creating much more in the way of costs for local municipalities. I am thinking of the area, for example, of solid waste treatment plants. If we are going to get solid waste plants in operation to handle the Nation's garbage problem, we are going to need the private sector to operate them and to relieve the local taxpayer of the onerous and, in some cases, very difficult areas involving new scientific areas and the scientists to deal with the disposal of solid waste.

If we are going to begin to reduce the cost to the taxpayer, for example, in terms of operating prison facilities, the privatization of the construction, et cetera, most aptly lends itself to the use of IDB's. It has played an important part in our Nation's history linked with small business in providing expansion and development. I think that there is an increasing role for it to be utilized. Therefore, Mr. Chairman, I am most supportive of your efforts in this area and certainly want to commend you for holding these hearings today.

[The prepared statement of Senator D'Amato follows:]

STATEMENT OF HON. ALFONSO M. D'AMATO, A U.S. SENATOR FROM THE STATE OF NEW YORK

Senator Pressler, I commend you for calling this hearing to review the small issue IDB Program. Historically, IDB's have helped create jobs and have allowed municipal services to be delivered and facilities to be build on a cheaper basis by private companies.

Small issue IDB's can be helpful in creating new jobs. Without the lower interest rate on these bonds, a firm may not have sufficient inducements to open up shop in a area. With IDB's new jobs are created; they are not used simply to move existing businesses from one area to another.

IDB's have encouraged movement towards the privatization of municipal services. For instance, resource recovery facilities are often owned and operated by private companies. Another example is non-profit hospitals operated independently without local support. This is also the case for multi-family low income housing and for waste water treatment facilities.

The Treasury Department, however, wants to turn back the clock on the privatization of municipal services. In its tax reform plan, Treasury would disallow any tax-exempt financing when more than 1 percent of the proceeds are used by a private entity. This would apply not only to IDB's, but also to general obligation bonds. Treasury wants to require more and larger government, rather than less government and more private ownership.

The 1 percent rule will result only in public ownership of more municipal operations, which will be funded by general obligation bonds. The end result will be a

higher deficit, since local governments are often less efficient than privately run operations. On top of this, a private company pays taxes on its profits, while local governments do not. Treasury will actually exacerbate the deficit in its thirst to end IDB's.

Mr. Chairman, this is the backdrop that we are operating under. We must define public purpose IDB's. I believe this should be done along the lines of encouraging the private ownership of government operations. Where the small issue program fits in this scheme is what must be investigated today.

Thank you, Mr. Chairman.

Senator PRESSLER. Incidentally, Senator D'Amato, you have been a great leader on this on the floor, and one of your constituents, Mr. Ira McCown, is here to testify today. You might want to greet him.

Senator D'AMATO. It is good to see you, Ira. [Laughter.]

I believe that the chairman has a long history in relationship to Mr. McCown as well.

Senator PRESSLER. We went to Harvard Law School together, and he got the highest grades.

Senator D'AMATO. But look who is a Senator, and Ira is just reduced to making millions. [Laughter.]

In the private sector, I might add.

Senator PRESSLER. Thank you.

We shall now hear from Mr. Jerry Boerboom who is the chief financial officer of Litchfield Precision Components, Litchfield, MN.

STATEMENT OF JERRY J. BOERBOOM, CHIEF FINANCIAL OFFICER, LITCHFIELD PRECISION COMPONENTS, INC., LITCHFIELD, MN

Mr. BOERBOOM. Mr. Chairman, thank you for the invitation to testify.

Litchfield Precision Components was founded in May 1975. The company manufactures, by a photochemical process, precision parts for the computer, electronic, and medical electronics industries. Our typical customers are IBM, Control Data, Texas Instruments, and the like.

The company started in 600 square feet and soon after moved to 3,000 square feet of rented facility. In 1979, the company constructed its own 6,000-square-foot facility. With three additions, this is currently 29,000 square feet.

Being a high-tech industry, our facilities become quite expensive because of the need for the clean room type of environment. Also, the operations are very capital intensive with equipment.

The third addition, which we completed in May 1984, along with the equipment for it, was financed with industrial development bonds. Were it not for the interest break received, we would not have been able to do the project. The employment level in March 1983 before the project commenced was 50 employees. Currently, we are at 200 people. Our operations are very labor intensive, so our expansions meet the desired purpose of industrial development bonds in creating jobs. All of the jobs created in the last expansion were totally from the Litchfield area.

In the summer of 1984, Litchfield Precision Components was also negotiating the acquisition of a company to move to Litchfield and expand on it. Plans were to finance this acquisition with industrial development bonds. Unfortunately, negotiations broke down due to

the delay in financing, because Minnesota enacted legislation which limited the use of IDB proceeds to 10 percent of the total proceeds of the issue.

Currently, we are planning a 20,000-square-foot expansion and acquisition of $1.5 to $2 million worth of equipment for that. This is to be financed by an SMA 503 loan for the building and by industrial development bonds for the equipment. We were to close on the bond purchase agreement today, but the legislation that was enacted a year ago has pending legislation in Minnesota right now to change that. The legislation did not go through yet. The Senate has adjourned, and they are going to be called into extra session. Hopefully, if everything goes through there, we will be able to proceed with that project.

We need these two methods of financing on this project because the bank would not finance the total property by conventional means. In fact, I am having trouble getting the bank to participate in the 50-percent part of the SBA program. Neither the current bank, Norwest, nor any of its affiliates have any interest in tax exempt financing right now. Consequently, we had to go to a public placement rather than a private placement on this issue. We expect to create a minimum of 50 jobs when this project is completed.

In conclusion, the publicly held and large companies can raise capital by an additional public offering or by corporate bonds. The small issue industrial development bonds cover a crucial need of the small, closely held corporation. Even though current and other ratios are acceptable to the banks, a small rural agriculturally oriented bank with low legal lending limits has trouble financing a high tech company with a growth rate doubling every year. Also, they have had trouble with the total amount of debt to one closely held corporation. Maybe for a bowling alley, a motel, or an athletic facility, there would be some justification for industrial development bond restrictions or elimination. However, they are an essential source of financing for the labor and capital intensive, rapidly expanding manufacturing companies.

Thank you.

[The prepared statement of Mr. Boerboom follows:]

STATEMENT BY

JERRY J. BOERBOOM

CHIEF FINANCIAL OFFICER,

LITCHFIELD PRECISION COMPONENTS, INC.
110 Industrial Blvd.
Litchfield, Minnesota 55355

BEFORE SMALL BUSINESS COMMITTEE'S FAMILY FARM SUBCOMMITTEE ON THE IMPORTANCE OF TAX-EXEMPT SMALL-BUSINESS INDUSTRIAL DEVELOPMENT BONDS

May 22, 1985

Litchfield Precision Components, Inc. was founded in May of 1975. The company manufactures, by a photo-chemical process, precision parts for the computer, electronic, and medical electronics industries. The company started in 600 square feet and soon after moved to 3000 square feet of rented facilities. In 1979, the company constructed their own 6000 square foot facility. With three additions, this currently is 29,000 square feet.

Being in the high-tech industry, our facilities become quite expensive because of the need for "clean room" etc. environments. Also, the operations are very capital intensive with equipment.

The third addition completed in May 1984, along with the equipment for it, was financed with industrial development bonds. Were it not for the interest break received, we would not have been able to do the project. The employment level in March of 1983 before the project commenced, was 50. Currently we are at 200 people. Our operations are very labor intensive, so our expansions meet the desired purpose of industrial development bonds of creating jobs.

In the summer of 1984, Litchfield Precision Components was negotiating the acquisition of a company to move to Litchfield and expand it. Plans were to finance this acquistion with an industrial development bond. Negotions broke down and Minnesota enacted legislation which limited the use of IDB proceeds for the acquistion of equipment to 10% of the total proceeds.

Currently, LPC is planning a 20,000 square foot expansion and acquisition of $1,500,000 - 2,000,000 of equipment. This is to be financed by a SBA 503 loan for the building and by industrial development bonds for the equipment. We were to sign the bond purchase agreement today, but had to drop out of this issue because Minnesota has not passed the pending legislation(hopefully it will be passed in the extra session) eliminating the 10% limit on equipment. We needed these two methods of financing since the bank would not finance the total project by conventional means. In fact, I'm having trouble getting the bank to participate the required 50% of the SBA 503 program. Neither Norwest Bank (nor any of its' affiliates) have any interest in tax exempt financing anymore. Consequently, we needed to use a public placement rather than a private placement. We expect to create a minimum of 50 jobs when this project is complete.

In conclusion, the publicly held and large companies are able to raise expansion funds by an additional public offering or issuance of corporate bonds. The small issue industrial development bonds cover a crucial need of the small, closely held corporation. Even though current and other ratios are acceptable, a small rural agricultural oriented bank with low legal lending limits, has trouble financing a high tech company with a growth rate doubling every year. Also, they have trouble with the total amount of debt to one closely held corporation. Maybe for a bowling alley, a motel or an athletic facility which do not create many jobs, industrial revenue bond financing should be restricted or eliminated. However, they are an essential source of financing for the labor intensive, rapidly expanding manufacturing companies.

Senator PRESSLER. Thank you very much.

Mr. Henry Berry, president of Engineering, Inc., from Hampton, VA, will be next.

STATEMENT OF HENRY K. BERRY, PRESIDENT, ENGINEERING, INC., HAMPTON, VA

Mr. BERRY. Thank you, Senator. I appreciate the opportunity to be able to be here today.

I would like to share with you how my company has grown and developed in the past few years as the result of industrial revenue bonds. We have gone from 10 or 15 employees with one small office building of about 5,000 square feet to 50 employees with a plant of about 74,000 square feet. I will show you some slides of that in a minute. We have the potential now to grow to 100 employees with no further significant capital investment.

All of this has been done at a cost of about $30,000 per year to the U.S. Treasury. I would be happy to go over how that is so.

Our company was founded in 1973 as a mechanical engineering company specializing in equipment design. We are located in the southern part of Virginia, Senator Trible's State, and he is not here today, unfortunately, but he is a member of your committee. Our primary client was then NASA Langley Research Center and we developed one-of-a-kind automated research equipment.

For the first 5 years, our work was pretty much limited to just paper—drawings and reports. We recognized a significant need for an ability to cut costs and reduce time schedules by not only doing the paper portion of a job but also the hardware portion. To do that, we needed to have capital financing.

Therefore, in 1979, we went to the bank to get financing for a new laboratory so that we could integrate our designs into hardware. At that time, interest rates were starting to go up. I don't remember the exact figure. It was in the 12- to 14-percent range. It would have been impossible to build a laboratory at that time with those interest rates.

We found out about IDB financing, and got our first industrial revenue bond for about $500,000 and built the larger building you can see in the background there.

[Slide was shown.]

Mr. BERRY. The inside of that building has a lot of special built-in features. There are a lot of machine tools in the building that are used to build various equipment we design.

[Slide was shown.]

Mr. BERRY. This is a supersonic wind tunnel. It is probably the most recent addition to that type of tunnel in the country.

This is a cryogenic smart tunnel. We won the engineering of the year excellence award in the State of Virginia from the Consulting Engineers Council for this. It is computer operated. Both of these jobs were done for NASA.

[Slide was shown.]

Mr. BERRY. This is a job we did also with wind tunnels. It is a laser positioning system. It is a computer controlled, microprocessor based system. You can't actually see the equipment. What you are looking at in this slide is in the tunnel where the laser takes data around air foil shapes, maybe an airplane. This is contributing to the supersonic development of aircraft in our aerospace industry.

In 1981, we again wanted to expand our company, by adding a computer center so that we could increase our microprocessor-based control systems for research equipment. To do that, we again turned to industrial revenue bond financing. Conventional interest rates were pushing toward 18 percent at that time.

[Slide was shown.]

Mr. BERRY. We built this computer center which allowed us to have the computer capacity to do stress analysis work and write algarithms to use in our control systems. Another portion of that particular building has an electronic fabrication area. You can see some of the types of hardware we build.

[Slide was shown.]

Mr. BERRY. None of this would have been possible without the IDB's.

In 1983, we recognized again that to continue to grow, we would not be able to just concentrate on one-of-a-kind research equipment; but needed to go into production as well. We were looking for different types of equipment to develop that would require multiple quantities after developing the prototype.

To do that, we needed a facility which that would allow us to go into production. Again, we turned to industrial revenue bond financing to build a production facility.

[Slide was shown.]

Mr. BERRY. This slide shows what we call a full-blown control system. It is a microprocessor-based system with a mainframe computer over the top for operation of a very sophisticated wind tunnel with high pressure, high temperature, and high mass flow rates.

[Slide was shown.]

Mr. BERRY. The production facility shown in this slide is a large building that provides us with a lot of production versatility because we were not sure what products we might be building. it is a chicken or the egg situation. We had to have the plant before we could get the contracts. Generally, people won't give you contracts, particularly the Federal Government, unless you have the facility to manufacture your product. So, we had to have reasonable financing to enale us to build our facilities or the cost would put us out of business while we were trying to generate new contracts.

[Slide was shown.]

Mr. BERRY. This is a project we have done in that particular facility. This is an aluminum structure manufactured the same way that the long duration exposure facility that is currently in space was manufactured. It has been in space about a year. It was put up by the space shuttle.

[Slide was shown.]

Mr. BERRY. Our employee complement is at 50 currently. You see them standing in front of our plant. We can double that employment base without any additional capital expenditures within the next few years. That is what we are in the process of doing now. This has all been possible—to go from about 25 percent of those people to the 50 level—because of industrial revenue financing. It would be a real shame if that financing wasn't available for others to use in the future.

That concludes my remarks. I would be happy to answer any questions.

[The prepared statement of Mr. Berry follows:]

ENGINEERING
INCORPORATED

STATEMENT BY
HENRY K. BERRY, PRESIDENT
ENGINEERING INCORPORATED
BEFORE SUBCOMMITTEE ON FAMILY FARM
SENATE SMALL BUSINESS COMMITTEE
MAY 22, 1985

First, thank you for the opportunity to share with you how tax-exempt industrial development bonds made possible the development and growth of the company I represent. I would like to begin with a brief history of Engineering Incorporated and end, if I may, with my thoughts on the importance of preserving this source of financing for small businesses.

History of Engineering Incorporated

Engineering Incorporated is a Virginia corporation founded in 1973 to provide a local capability for design and analysis of mechanical and structural equipment with emphasis on high technology.

In 1975, we identified the need for turnkey engineering and manufacturing of equipment. Consequently, management of turnkey projects was undertaken by subcontracting local firms to perform the machining, welding, and fabricating on contracts awarded to Engineering Incorporated.

In 1978, the company realized the potential for replacing conventional control systems with microprocessor-based control systems. Engineering Incorporated expanded its capability in this area by adding the appropriate personnel and equipment to design, fabricate, check out, and install microprocessor-based control systems.

41 Research Drive, Langley Research Park, Hampton, Virginia 23666
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In 1979, the company recognized that in order to control cost, quality, and schedule of the total product, it was necessary to have an in-house machining and fabrication capability along with its engineering and in-house electronics manufacturing capabilities. However, the cost of conventional financing prohibited the expansion needed until IDB's were discovered and our first IDB for $500,000 was secured.

In 1981, we again wanted to expand our company capability in microprocessor-based control system and computer assisted engineering analysis. We turned to IDB's as the only affordable vehicle to finance the construction of a computer center and electronics laboratory and secured our second IDB for $500,000.

In 1983, the company planned to evolve a total in-house manufacturing capability, including all the management and control systems for production scheduling and quality control. It was then that a third IDB was secured which was in the amount of $675,000 for the construction of a fabrication shop. This brings us to what Engineering Incorporated has in the way of facilities and capability today -- complete capability in all areas of engineering (structural, mechanical, and electrical) as well as capabilities in manufacturing, installation and check out of equipment and associated real-time automated control systems.

Initially, we used these facilities, all constructed with IDB financing, to support NASA. While doing so, we received five consecutive years of Engineering Excellence Awards from the Consulting Engineers Council of Virginia for our new technology solutions. These projects included:

1980 - NASA Langley Research Center's One-Third Meter Transonic Cryogenic Wind Tunnel Flexible Wall Test Section Design.

1981 - Automated System Control of NASA Langley Research Center's National Transonic Facility (NTF).

1982 - Automated Laser Velocimeter Scanning System for NASA Langley Research Center.

1983 - High Speed Aerospace Model Injection System for NASA Langley Research Center's CF_4 Tunnel.

1984 - Automated Control of Gas Dynamics Research Facility at NASA Langley Research Center.

As you can see IDB financing has fostered the development of a high technology company that initially used its facilities to support NASA, but now is available, and is being used, to support any number of other agencies including the U.S. Air Force, U.S. Army, U.S. Navy and the Department of Transportation. Our employee complement has grown from 15 in 1978 to 50 in 1984. With the completion of the fabrication facility we now have the capacity to increase this employee complement to 100.

Why I feel it is important that IDB's are preserved for small businesses.

It is important to the future of this country that people brought up in average income environments have opportunities to rise up through the ranks and experience the ultimate American dream of owning and operating small businesses. No matter how talented and dedicated people are, it is impossible to achieve this dream unless there is affordable financing. IDB's are such a tool and must be preserved for future generations of capable people to own and operate small businesses. From my own experience, it would have been impossible for our business to expand had this form of financing not been available to us.

Senator PRESSLER. I thank you all very much.

First of all, I should make a very special introduction. Wilbur and Elizabeth Foss are here. Wilbur is a retired banker from South Dakota who is my senior citizen intern, and a very knowledgeable man in financial affairs. He and his wife are in the room. Wilbur and Elizabeth, would you just stand up and let us see you for a minute? We welcome you here. Wilbur is one of the most knowledgeable guys on finances in my State.

Turning back to the hearing, let me address a question to each of you and ask if you could answer this in a nutshell. The real question before the Senate and the House is that the administration will be coming with a tax bill next Tuesday, and David Stockman and the President contend that even assuming there is more employment, even assuming there is more economic activity, the Federal Government still loses somewhere between $4 and $8 billion in revenue over the issuance of industrial revenue bonds. That is a point for some debate.

We are trying to balance the budget. We have this enormous deficit. In a nutshell, what would each of your response to that subject be?

Mr. HARRIS. The thing that I see right now as we are talking, we are talking about what the Government loses in taxes. I think we are forgetting what the Government gains in taxes.

As I sit right here, three of us that are talking are all in the manufacturing business, and Jack Dinos is in the food business. The equipment that we build, metal cutting band saws, would be used by the other two companies. So, I believe that we are contributing significantly to the tax structure. Our equipment allows Jerry and Mr. Berry's businesses also to grow, and they contribute significantly to the tax structure. If our business didn't exist and their businesses didn't exist, all of us here at the table, the tax structure would drop far more than the amount that we are talking about losing.

Mr. DINOS. I don't have the exact records, Senator, but probably the greatest number of people who are employed in manufacturing in America today are employed by small manufacturers such as the firms represented here giving testimony. We are generally not defense contractors. In fact, my company does no business with the Federal Government.

One of the subjects that I addressed at lunch today with Representative Buddy Darden from our district was, "How does the Armed Forces Committee of the House allow major defense contractors to get by without paying taxes." I think that if Congress were to address the real problems of this Nation, they would look to those things that probably are major violations of ethical practices which would generate a lot more income to the Government than the losses that would be sustained through the continuance of an industrial development bond funding program, a program which enables us to employ over 400 people and operate profitably and pay taxes.

I think that is perhaps why I support the administration's views. But I disagree with discontining IDB's and I think they should redirect their viewpoint at where the problem really lies. They can get more money out of places where we are failing to get it today.

Mr. BOERBOOM. I would have to echo what they just said. Just at the corporate level itself in the last 2 years—I don't have the exact figures, but I think I am within the ball park—on a corporate income tax level alone, we have increased by a magnitude of greater than 10 times.

In addition to that, you have the employee level going from 50 to 200 employees. They are all income tax payers. You also have the local level which maybe doesn't come to the Federal level, but the real estate taxes and all other related taxes are paid. The money that it pumps back into the community generates additional businesses that again come back and pay taxes.

Just to summarize, if they look at it as a tax loss, it seems extremely narrow minded. I would say that instead of a tax loss, it is a tax generator.

Mr. BERRY. I looked at this two ways, Senator Pressler, and I would like to share my thoughts with you on this. One, I looked at the amount of interest our company paid on industrial revenue bonds last year. That amounted to $140,000. I also looked at what it would have cost me if I had paid conventional financing instead of the reduced rate, and that would have been $200,000. If I did not have industrial revenue financing, it would have cost me an additional $60,000 in financing. This is for 1984.

That means that the bank that I borrowed the money from would have had $60,000 in additional income. Let's assume that they were in the 50 percent tax bracket. That would mean they would owe $30,000 to the Federal Government in taxes. In essence, for a 15-year loan, the Treasury is not getting $30,000 per year for 15 years.

In turn, instead of having 15 employees, I have 50. Hopefully, we will have 100 within 2 years. In 1984 my company paid $150,000 in local and State taxes and fees. Through our employees, we have paid $300,000 to the Federal Government in taxes. Sixty percent of those two figures would have not been paid had I not had the employee base. This is in return for the $30,000 per year tax loss. As you can see there is an order of magnitude return on the Government's investment in us.

I don't know if I made myself clear on that.

Senator PRESSLER. That is, and you all may submit additional figures.

You are all businessmen of experience in this area. Let me play the devil's advocate and state two other arguments that are used against IDB's and get your responses if you wish. Opponents of IDB's argue that investments made in companies utilizing tax-exempt financing would have been made even if tax-exempt financing had not been available. Each of you has used IDB's to start or expand your businesses. If this financing had not been available, what other resources, if any, were available to you to expand when you did, and did you attempt to obtain financing from other sources?

Mr. HARRIS. I would like to address this again. I am an active member of the National Machine Tool Builders Association, and we have a brochure here, "The Investment Link between Taxes and Unemployment." The manufacturing base in this country is 20 percent, I think, of our gross labor base. We have a very large loss in

our balance of payments. The trade deficit comes primarily from lack of farm products and machine products being sold throughout the rest of the world. The rest of the world's economies, their governments, support the manufacturing base.

So, when we talk about would we be investing in our products as business people, one of the questions asked, particularly when someone is trying to take over a company, and there have been a few people quite successful at that, that they are trying to return more equity to the stockholders and make it more profitable. That is their argument. Our argument for using the development bonds is to become profitable and be very active in contributing to the success of our country.

Not always are the finances available. I can speak only in my case. As we look at foreign competition and the types of support that the governments give those countries as a manufacturing base and for subsidizing their exports, we have to think of what we need to do in this country to support our industries and the manufacturing base so it can be competitive. The competitive rules are not the same throughout the world. We need to try to equalize those as much as possible.

Financing is not always available. We looked at it specifically. We were a California-based company originally. We did move to Oklahoma. Our growth was not possible in California. I was not aware of development bonds in that State. They may have been there.

In Oklahoma, they had participated actively in bringing industry in and allowing industry to grow and be successful. We are a very large contributor, 2 percent in our county, of the employment in our country. We are contributing to the wages. We are contributing to employees buying things in the community. If our company was not there, they would have to find some other form of manufacturing employment, and that is declining.

Mr. DINOS. Our company had existed for 70 years prior to our involvement with industrial development bonds. And it managed to grow, but its growth was certainly not as fast. It did not encompass the marketing area and scope that it has today and gained over the past 5 years through the employment of industrial development bonds to provide facilities.

We look at this financing as a means strictly for facilities. We use conventional financing every day to fund our operations, the normal requirements of our operating capital. So, this provided a means, and still does, and I hope it will continue, for small industry to preserve needed working capital for growth and to provide facilities acquisition capital at a cost that makes it possible for small businesses such as ourselves to afford them.

Mr. BOERBOOM. I can only repeat my testimony that in fact we had the one case a year ago that because of Minnesota having more restrictive laws than the Federal, one project was not done that we were attempting to put together. Again, the current project that we have going, if the extra session of the legislature does not change that legislation, it will kill this project also. We have exhausted conventional means.

At this point, if Minnesota does not change it, from a Federal standpoint, we will be doing the project in another State. I guess I

might add at this point that your State happens to be very cooperative in assisting in that.

Mr. BERRY. In our situation, we would have not been able to finance it in any other fashion. The difference in the cost of the financing would have turned us from a profitable operation to a loss situation, and we would be out of business.

Senator PRESSLER. Thank you. I do have a statement from Senator Dixon here. In addition to his statement, he welcomes his constituent who will appear in our next panel, Mr. Ronald Bailey, executive director of the Illinois Farm Development Authority of Springfield, IL. I ask unanimous consent that we make Senator Dixon's statement a part of the record.

Senator Bumpers, having arrived, do you wish to make an opening statement?

Senator BUMPERS. Mr. Chairman, I have a statement here, and I would ask unanimous consent that it be made a part of the record.

Senator PRESSLER. Without objection, it is so ordered.

[The prepared statements of Senators Dixon and Bumpers follow:]

STATEMENT OF HON. ALAN J. DIXON, A U.S. SENATOR FROM THE STATE OF ILLINOIS

I am pleased to participate in the Small Business Subcommittee on Family Farm's hearing on the importance of tax exempt small issue Industrial Development Bonds as a source of financing for small business expansion.

Small business expansion is a vital key to economic recovery nationwide, as well as in my own State of Illinois. In Illinois, 80 percent of new employment comes from small business. These bonds have been very useful for the growth of small business in Illinois. Therefore, the future of these bond issues is an issue that must be seriously examined.

We are looking forward to hearing from Mr. Ronald Bailey, the executive director to the Illinois Farm Development Authority from Springfield, Illinois. Given his significant agricultural background, I am sure Mr. Bailey will be able to enlighten the committee on the relationship between farms and industrial revenue bonds.

STATEMENT OF HON. DALE BUMPERS, A U.S. SENATOR FROM THE STATE OF ARKANSAS

Mr. Chairman, I commend you for taking the initiative to hold this hearing in the Family Farm Subcommittee today concerning the importance of Industrial Development Bonds to small business in America. IDB's have, to say the least, been the topic of much interest, and even hand-wringing, in Congress in recent years, and it is no wonder. From 1975 to 1982, long-term, tax-exempt issues grew from $31.3 billion to $85.8 billion, an increase of 174 percent. But at the same time, the use of private-purpose bonds, those which are not used for what have traditionally been considered functions of municipal government, such as sewers and public buildings, grew from $6.2 billion to $44 billion, an increase of over 600 percent.

According to the Joint Committee on Taxation, these bond issues cost the Federal Treasury $9.1 billion in lost revenue in 1985. Of this amount, small issue bonds accounted for only $2.0 billion. But revenue lost to the federal treasury is not the whole cost of such issues. The increasing use of IDB's has also helped drive up the cost of money to states and municipalities for the traditional uses of tax-exempt bonds, construction of public facilities.

However, I do not complain about those who have taken advantage of this federal subsidy. First, IDB's have been an especially important economic growth tool for capital-poor states like Arkansas. IDB's have helped provide hundreds of jobs in my state by attracting new industries and helping existing companies to expand. Any accounting of the tax revenue cost of IDB's should take into account the taxes paid by all of those those people and corporations who might not be doing so without this economic incentive.

Second, much of the reason for the increasing use of IDB's lies in misguided federal policy. For example, there has been a dramatic increase in the use of IDB's to finance state-sponsored student loan programs. I dare say there is no stronger sup-

porter of student loans in the Senate than this Senator, and I think the states are making a wise investment in the future any time they make it possible for more young people to further their education. But this new dependency of states on IDB's for student loan has been necessitated by the foolish policy of the last five years which has sharply reduced federal support for student loans. I cannot think of any spending reduction which could be more penney-wise and pound-foolish insofar as our future is concerned, or the preservation of our American ideal of equality of opportunity. The states have found it necessary to make up this deficit, and this should be instructive to members of Congress and the Administration that there is no such thing as a free lunch. The money supposedly saved by reducing the federal commitment to student loans results in more tax-exempt bonds being issued, which in turn, results in less revenue, which drives up the federal deficit, which results in permanently larger federal expenditures for interest on the national debt.

Congress will undoubtedly have to face the issue of IDB's again this year when the Administration sends us a tax reform plan. Therefore, Senator Pressler has done us a great service by asking members of the Small Business Committee to focus on the importance of IDB's to small business, which usually gets short shrift in any tax revision plan. Not many small business people can afford to blacken the skies over Washington with private jets, as happens every time the Finance Committee meets to consider a tax bill.

I look forward to reviewing testimony of today's witnesses.

Senator PRESSLER. We thank you, gentlemen, very much.

We shall call our next panel forward. I would like to call forward Robert Bowman, the State treasurer of Michigan; Mr. Charles Kireker, executive director of the Massachusetts Industrial Finance Agency; Mr. Calvin Engel, the executive director of the Aberdeen Development Corp. of Aberdeen, SD; and Mr. Ronald Bailey, executive director of the Illinois Farm Development Authority of Springfield, IL. I will call on you in the order listed. Mr. Bowman, you will be first.

STATEMENT OF ROBERT A. BOWMAN, STATE TREASURER, STATE OF MICHIGAN

Mr. BOWMAN. Thank you, Mr. Chairman.

Our purpose today is to discuss with you and the committee the important role IDB's play in State and local economic development. You have already heard perhaps the best testimony you will hear—from business people themselves of the positive effect IDB's have had. Our purpose, the four of us, is to discuss perhaps a little bit more broadly the positive effects they have and also the crucial role that they play for States and local governments who look forward to economic development in the future.

There are three fundamental reasons that I, as a State treasurer, oppose the elimination of small issue IDB's. First and perhaps foremost, the public purpose of these bonds is well documented. Many people call these private activity bonds, but I believe that is a misnomer. They serve a public purpose, that is, job creation.

Second, as you have already mentioned, Senator, the U.S. Treasury proposal, Treasury II, will probably eliminate some form of IDB's. They will propose some sort of elimination under the guise of tax fairness. That elimination will increase, as you have already heard, the burden on State and local governments, and it will increase the cost of doing business for the small businesses of the State and of this country. That, reflects an increased cost of doing business and, obviously, a hidden tax. Under the guise of tax fairness, Treasury II will certainly increase the taxes, if you will, of many of the important businesses of this country.

The third reason I oppose the elimination—and I will get into it somewhat in testimony—is the economic justification that many people have heard for IDB elimination is not supported by the data, is erroneous, and perhaps political in nature.

If I can just briefly summarize the role of tax exempt bonds from a State perspective. In 1975, there was about $29 billion of tax exempt debt issued in this country. Last year, there was over $100 billion. In 1975, there were only $500 million of IDB's issued. Last year, it was $4.5 billion.

We already know the substantial benefits of tax exempt debt and why they have grown. State and local governments need it for capital projects. Businesses need it to expand.

Like the municipal market, IDB's have grown over the last 10 years. This has occurred as State and local governments are trying to utilize every avenue possible to help the small businesses. That growth, though, $500 million to $4.5 billion, is neither disturbing nor is it alarming. It certainly is not detrimental. Rather, it has been absolutely necessary as these businesses have tried to expand.

Moreover, during the last 10-year period, the Federal borrowing to finance deficits has grown from about $10 to $20 billion to something of approaching $200 billion today. The growth of that volume has increased about two and a half times compared to IDB issuance.

In Michigan, we have also seen the rapid growth. In the last 6 years, we have issued about $1.5 billion of small issue IDB's for about 500 firms with an average of $3 million per firm. We believe those IDB's have saved, retained, or created about 100,000 jobs over the last 6 years. Without the IDB financing, the cost for that capital would have been between 20 and 40 percent higher.

In Michigan, as I think you will hear from other speakers, we have also tried to supplement IDB's with venture capital assistance from the State pension fund, fixed cost financing from State money, and favorable tax treatment for capital expansion for the businesses in our State. They can write off the entire cost of a capital expansion in our State. We have used all three of those techniques to complement the IDB's, but IDB's remain the No. 1 economic development tool in Michigan, and I suspect in other States, too.

Let me turn to three arguments that I have heard from the U.S. Department of Treasury defending IDB elimination. I am a former Treasury employee, and I know that they have had a longstanding opposition to tax exempt financing of any kind.

Argument No. 1, and you have touched upon it already, Mr. Chairman, was that we need to eliminate the IDB's to try to take care of this Federal deficit and cure the revenue problem of this country and try in some way to increase revenues. Their estimate for 1986 is that if we eliminate IDB's, we will increase revenues by $600 million.

Although that is quite a small number to begin with, we can see that there are two faults in the analysis. First, it assumes that an investor will move from a tax exempt entity such as an IDB to a taxable investment. Obviously, that is not going to be the case. An investor who is interested in tax exempt income is going to be interested in tax exempt income. That will even be exaggerated to

the point that Treasury II does not eliminate the myriad of tax loopholes that are now prevalent in our Internal Revenue Code. So, the basic assumption that it will move from a tax exempt investment to a taxable one, I think, is erroneous.

More important is the reflow effect. The gentlemen up here before touched upon that. I can talk about Michigan. By reflow, we mean new jobs and, therefore, new taxes. In the last 6 years, we believe State revenue dollars have been reduced by about $8 million because of the State tax exemption on State issued IDB bonds. We also estimate, however, that because of these new jobs and people working at average wage rates and average deductions, the tax revenues have increased by $30 million. Just in Michigan alone, the positive reflow has been a net $22 million or almost four times what we lost in taxes.

The CBO confirms that. In 1981, the Congressional Budget Office did an analysis of reflow and said to the extent that IDB's are issued, the net gain in Federal revenues from the 1981 report would be about 1 percent. So, even the nonpartisan Congressional Budget Office agrees with the notion of reflows, and we at the State level understand it very clearly because we have seen more tax dollars.

A second argument offered by Treasury is the supply of IDB's. They have argued that proliferation of IDB's has caused interest rates to go up. As someone who has been in the market as both a borrower as well as a lender, that is not the case. IDB's are only about 3 percent of the market, and they have never gone above 5 percent. When something is that small in the market, they are not going to cause wide market swings.

Second, the municipal market is not a supply oriented market. It is a demand-based market. When demand falls off, interest rates will go up. From 1979 to 1982, demand fell dramatically as banks and insurance companies, principal purchasers of municipal debt, no longer had profits and no longer, therefore, needed tax exempt income. The market has been restructured, and the municipal industry is now selling successfully to retail investors, and the spreads are back to their normal levels.

The third argument that we have heard against IDB's is that it is a misallocation of scarce capital and that by using the tax system, we are putting money in the wrong area. I would argue that, as these businesspersons have already told you, that they still have to meet credit tests. Their credit is invariably on the line for these tax exempt bonds. There is not a misallocation of capital. Rather, there is just more effective capital available because businesses can borrow a bit more, or a bit sooner.

There is certainly no misallocation because no company can borrow money unless it is credit worthy. Their credit is still on the line.

Also, needless to say, there is not a fixed supply of capital in this world, as some people have argued. If there were, then I think you all would agree that the deficits of the past 5, 6, and even 10 years would have come home to roost long before 1985 or 1986. We have found in this country in the last 2 years that foreign capital can flow quite nicely into this country.

Those are the three principal arguments we have heard about why IDB's should be eliminated. I think they are erroneous. If one returns to the first element, the positive effects that IDB's have in creating jobs and helping businesses, principally small businesses, where the real jobs will occur in the future, then you will conclude, as have we, that IDB's serve a crucial national purpose. Eighty percent of the new jobs will be with small businesses. I think if one examines those two fundamental points, you would agree with us, that the elimination of IDB's is penny wise and pound foolish.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Bowman follows:]

Statement of Robert A. Bowman, State Treasurer

State of Michigan

before the

Family Farm Subcommittee

of the

United States Senate Committee on Small Business

Washington, D.C.

May 22, 1985

Mr. Chairman and Distinguished Members of this Subcommittee:

My name is Bob Bowman and I have served as State Treasurer of Michigan since January of 1983. Prior to that time, I was an investment banker in New York City, specializing in municipal finance, and an appointee in the U.S. Treasury Department. As State Treasurer, I oversee all state debt issues, including those for industrial development purposes.

Thank you very much for the opportunity to speak to you about an important issue with state and local governments throughout this country. Our purpose today is to demonstrate effectively the positive role that Industrial Development Bonds (IDB's) play in the economic development initiatives of state and local governments. With me are representatives from across the country who will speak about their State's specific efforts to assist small businesses and the crucial role of IDB's. Many smaller businesses in this country need fixed-rate, low-cost financing for expansion. Tax-exempt financing has provided that type of financing for those businesses. I am here today to oppose the elimination of small-issue IDB's for three fundamental reasons.

First, the public purpose of IDB's is well documented. They have served businesses, governments and workers in this country well. Termination of these bonds would hurt the best job providers this country has in the future.

Second, the U.S. Treasury proposal to eliminate these types of bonds, at a time when it is discussing "tax fairness," represents a tremendous burden on state and local governments and, obviously, a substantial tax increase on the small businesses of this nation. This aspect of the Treasury proposal could raise the taxes on businesses by about $200 million on an annual basis.

And third, the economic justification for IDB elimination is not supported by the data, and is merely a rationale for a political purpose. Tax-exempt bonds are not a loophole; rather, they represent a long-standing relationship by and between state governments and the federal government.

The Role of Tax-Exempt Bonds

For over 100 years, state and local governments have been issuing bonds for necessary capital projects, much in the same manner as corporations. And since 1913, interest on those bonds has been exempt from federal taxation. There are many legal, constitutional and philosophical reasons why state and local obligations should be exempt from federal oversight, including federal taxation of interest. Rather than have that discussion, let us turn to IDB's on a much narrower scale.

Over the last decade the amount of municipal debt issued annually, has grown from $29 billion to $100 billion today. Over that same period of time, IDB's, excluding pollution control, have grown from $500 million to $4.5 billion.

As you know, tax-exempt bonds have lower interest rates than their taxable counterparts. The benefits of lower interest rates accrue directly to the state or local government, or in the case of IDB's, to the business.

Utilization of IDB's

Like the municipal market generally, the use of IDB's has grown over the last 10 years. This growth has occured as more state and local governments are trying to utilize all potential financing techniques in order to provide needed capi al to small businesses. The growth has not been alarming nor has it been detrimental. Rather, it is absolutely necessary. I should add that the federal government deficit borrowings have increased from about $10-20 billion in the mid-seventies to approximately $200 billion today. That increase in volume is about 2½ times the increase in volume in the municipal market

In Michigan, for instance, we have issued approximately $1.5 billion of small issue IDB's which have created or retained over 100,000 jobs in the past six years. Many of those IDB users were in the bond market for the first time, and only as a result of little financing alternative. Without the tax-exemption available to those companies, the cost of capital would have been 20-40% higher and many of those businesses would not have started or expanded in Michigan.

To complement IDB's, we have also tried to assist business financing through State-supported fixed rate loans, venture capital investments from the State pension system and favorable tax treatment for capital expansion. While all of these techniques have been useful, they have not been as important a tool as IDB financing.

Contrary to the standard media portrayal, the vast majority of IDB's are utilized by extremely small corporations and are utilized for needed plant and equipment expansion. The abuses which occured in the past and have now been outlawed, were very few.

Let me turn now to three arguments posited by the U.S. Department of Treasury as to why IDB's should be eliminated. As a former employee of the Treasury Department, I am well aware of its long-standing opposition to tax-exempt debt. It has argued that IDB's have made detrimental effects on the overall municipal market.

1. Supply of IDB's

Treasury has argued that because there has been a growing proliferation of IDB's, the cost of municipal borrowings has increased. The data do not support that conjecture, however. First, small issue IDB's have always been a very small portion of the entire tax-exempt market, averaging between 3-5% of the entire municipal market. Even during 1979-82 when their volume doubled, their overall share of the market was still below 5%.

Second, the municipal market is not a supply oriented market. Interest rates on municipal debt are dependent much more upon investor demand for tax-exempt debt than by the overall supply.

Prior to 1979, banks and insurance companies were large investors in municipal bonds, as they tried to shelter some of their income. Because their profit picture changed during that time, their demand for municipal bonds was, and remains, greatly below prior levels. That drop in demand caused tax-exempt interest rates to rise relative to taxable interest rates. To respond to the changing profile of potential investors, municipal bond issuers have adopted methods to have their bond issues appeal more to the individual or retail investor. These structural changes have been undertaken successfully.

Third, municipal bond interest rates are closely tied to the general international economy and interest rates received for U.S. debt. When municipal bond interest rates were rising several years ago, it was due in part to higher interest rates, nationally.

In general, however, I have found that the overall supply of IDB's has little, if any, effect on the interest rates of the general municipal market.

2. Revenue Effects of IDB's

Treasury is also stating that one way to reduce the federal deficit is to eliminate tax-exempt bonds. By eliminating those bonds, Treasury contends, federal tax revenues will go up and the federal deficit will therefore be cut. The argument is faulty for two fundamental reasons. The estimated savings of approximately $600 million in fiscal year 1986 examines only one side of the equation.

Specifically, the Department assumes that investors will switch their investment from a tax-exempt obligation, such as IDB's, to a taxable instrument. Obviously, investors are much more likely to switch from one type of tax-exempt security to another, particularly if the new Treasury proposal does not close the myriad of tax preference loopholes which exist in the Internal Revenue Code. The conclusion that federal tax revenues will go up because investors are moving from a tax-exempt to a taxable investment is illogical. The Treasury analysis also ignores the positive reflow affects of IDB's.

By reflow, I mean tax dollars which go into state and local governments as well as the Federal treasury from the people who now have jobs and are now paying taxes. IDB's are unique perhaps in their role of providing real and permanent economic growth. In Michigan, for example, we estimate that state tax collections were reduced by about $8 million due to the state tax exemption of State-issued IDB's. We also estimate, however, that tax revenues increased by over $30 million because of people working in new jobs and paying state taxes. I believe that if the U.S. Treasury were to analyze both sides of the equation, a different story would unfold. In fact, the Congressional Budget Office analyzed these reflows in 1981, it concluded that Federal revenues would increase nearly 1% in 1986 because of new IDB's.

Although it is now popular to utilize the federal deficit as the scapegoat for any change in Federal policy, Treasury's conclusion of increased revenue is misleading.

3. Allocation of Capital

Opponents of IDB's also argue that their tax-exempt status creates distortions in the allocation of capital. Since the corporation's credit is usually pledged for tax-exempt financing, little distortion occurs. The principal effect of IDB's is encouraging a larger or more rapid investment. Only productive and creditworthy companies can utilize IDB's. There are still capital decisions to be made, but the lower interest rate positively affects the feasibility analysis. And finally the supply of capital is not fixed and therefore IDB's are not "stealing" from other forms of capital investment. If the supply of capital were indeed fixed in this country, the ceaseless and historic federal budget deficits would have caused an economic downturn by now.

Conclusion

In analyzing IDB's, three basic observations can be made. First, IDB's serve an important role for small businesses in this country. Their needs are more important today than they were ten years ago, and any proposal to impact adversely upon them is perhaps penny wise and pound foolish. Second, the three general arguments given for the elimination of IDB's are, upon close examination, superficial or erroneous. And third, the federal regulations have already worked successfully to guarantee that states are using IDB's efficiently and for the general goal of public purpose. I would, therefore, support no further federal oversight but rather a review of the current program that seems to be working so well for the businesses of this country.

Thank you, Mr. Chairman.

Senator PRESSLER. Thank you.

I shall next call on Calvin Engel who is the executive director of the Aberdeen Development Corp., Aberdeen, SD. We are proud to have you hear.

Senator BUMPERS. I wonder, Mr. Engel, how in the world you got invited to this.

Mr. ENGEL. I guess probably——

Senator BUMPERS. Your good looks and outstanding talent, I am sure.

Mr. ENGEL. There must have been something else.

STATEMENT OF CALVIN ENGEL, EXECUTIVE VICE PRESIDENT, ABERDEEN DEVELOPMENT CORP., ABERDEEN, SD

Mr. ENGEL. Thank you for inviting me. I appreciate the opportunity to make some remarks on experiences that I have had. As I look around the room, there is probably no one who has had more time to have had experiences that I have. I think I am the oldest one here.

I think my remarks would be probably a little bit more meaningful if I told you just very briefly who I am, because it will mean something in my remarks. I was born and raised on a farm. I lived on a farm until I was 25 years old at which time I had completed some education and became a teacher for 6 years before I was drafted into the military and served 3½ years. After my military service, I decided there must be something where I could make more money than teaching, so I started the Hudson Garage. The Hudson Co. went out of business 3 years later, so I went back to teaching again as a school administrator for 21 more years.

On my retirement from teaching at the age required to retire, I decided that a lot of things needed to be done other than education of the young people of our country which is probably my first love. At that time, I accepted the challenge to work for the Aberdeen Development Corp. I think it is important for you to know that I did not do it for monetary gain. I worked for $5,000 per year, but I did get cost of living increases ever since. I had an entirely new education in the world of business since then.

We are a rural community, and I don't think there is anyone in this country who is not aware of the problems in rural America. South Dakota is underpopulated, undercapitalized, and we do not have available risk or venture capital as perhaps the more metropolitan areas may have. We need every possible means to encourage economic growth.

Industrial development bonds support important projects in our State, in Aberdeen, and Brown County, SD, where I work to create a more stable economy. Aberdeen is a town of a population of about 27,000 according to the census figures. It is 30,000 according to the chamber of commerce.

In the past 10 years, we have issued $44 million in industrial development bonds to 35 projects. Those 35 projects created 2,941 jobs and a payroll of nearly $30 million. Much of that payroll went to second incomes for farm families to help stabilize the rural economy. Of these 35 issues, 21 were $500,000 or less. So, when we talk

about small issue in South Dakota, we really do have small issue bonds.

These small factories, some of them employ from 10 to 50 people. The $30 million that these jobs created in Brown County have certainly had a substantial impact on the general welfare of our area during a very difficult time. The increase in the tax base of our community, including real estate taxes, sales taxes, and so on, which have resulted because of this extra $30 million certainly is something that is very meaningful to our area and has done a great deal toward raising the standard of living. The average wage in our part of South Dakota is about $10,000 per year.

When you consider all of those factors, it shows how important industrial development, which would not have happened if it hadn't been for industrial development bonds, is.

Changes were enacted in 1982 and 1984 to somewhat limit the use, but it has not affected our area because of the limited use that we make of them now, but the use that we do make of them is so very important to us. I think these changes have been vital because they have made each of us look at the issues so that their use could lead effectively to create jobs.

I think when we look at the population of South Dakota, the 1980 census showed the population of our State to be 690,178. We count the people who have come to Washington from South Dakota, too. When we take the roll each morning, we count them present. We have had an immense loss of population in South Dakota. We have had in the past 20 years an average of over 3,000 people per year who have migrated from our State.

When we look at the kind of people who have migrated from our State, we find out that they are primarily rural, white, male, and in the age groups of 24 to 44 with children under 10. People from the age of 24 to 44 should be in their very productive stage. We can't afford to continue to lose people at that rate if South Dakota is going to continue to be a part of this great continent.

The out migration has resulted in a population that is much older. We do not have the middle, young people in our State like we ought to have. When we find that 61,546 people have migrated from our State in the past 20 years, it has left an older population. I don't think it takes a great deal of intelligence to be able to analyze what that might eventually mean for our State.

So, we need to do everything possible to create jobs. The purpose of Aberdeen Development Corp. is to create jobs. We have been reasonably successful in doing that. We will be greatly handicapped if we are restricted in any way by the elimination or further restriction of industrial revenue bonds.

Jobs have been created by expansions made possible by industrial development bonds and by new plants that have been built. So, I guess I would like to conclude my testimony by saying it would appear to us that as long as we can have some affordable financing, we will continue to make gains and decrease the losses that we have experienced in the past and stabilize our economy, our agricultural and economic base.

Thank you.

[The prepared statement of Mr. Engel follows:]

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STATEMENT BY
CALVIN ENGEL, EXECUTIVE VICE PRESIDENT, ABERDEEN DEVELOPMENT CORPORATION
514½ SOUTH MAIN, ABERDEEN, SOUTH DAKOTA 57401
BEFORE SUBCOMMITTEE ON FAMILY FARM
SENATE SMALL BUSINESS COMMITTEE
WEDNESDAY, MAY 22, 1985

I am here today representing the people of Aberdeen and South Dakota to request this committee's support for the Industrial Development Bond program. I strongly urge you to recommend continuation of IDBs in your deliberations of the President's tax simplification plan.

Rural America, such as South Dakota, is under-populated and under-capitalized and does not have risk capital available to encourage much needed economic growth.

In our state, IDBs have supported important projects resulting in an improved economy; new jobs and overall economic growth. These benefits, which include the creation of 2,941 jobs and a payroll of nearly $30,000,000, have had a very substantial impact on the general welfare of everyone in this area. The increase in the tax base of our community and the real estate and sales tax has made possible a higher standard of living for the people of the area and South Dakota. If we are to continue industrial development and economic growth, this program must be retained. Surely it can be without compromising the goals of the proposed tax simplification plan.

Changes have already been enacted in the 1982 and 1984 tax laws to restrict the use of IDBs and to limit the overall annual volume of bonds which can be issued. These changes ensure that this vital financing tool is used wisely and responsibly.

We have very limited financing tools available to encourage economic growth, therefore, financing available to us is used wisely. If further restrictions are placed in our growth pattern it may result in more welfare and unemployment in our state.

I strongly urge your committee to oppose efforts to further restrict or eliminate IDBs as a part of tax simplification or tax reform proposals.

Senator PRESSLER. Thank you.

Senator BUMPERS. Mr. Chairman?

Senator PRESSLER. Yes.

Senator BUMPERS. I have to run. Would you indulge me with one question before I leave?

Senator PRESSLER. Of course.

Senator BUMPERS. Mr. Engel, I am a supporter of IDB's. I come from a relatively poor State, as you have just described South Dakota. However, just to be the devil's advocate, let me ask you this question. If there were no such thing as IDB's, why would anybody be penalized? I recognize that the cost of money is less because IDB's are tax exempt, and therefore, bring a much lower cost to the development project, whatever it might be, but industrial revenue bonds of all kinds are now costing the Federal Treasury a total of $9 billion a year. If everybody were on the same playing field, if you just eliminated IDB's, how would anybody be put at a competitive disadvantage?

Mr. ENGEL. I am not a tax expert. I have problems with my own income tax, but——

Senator BUMPERS. Do like I did. Just send the Pentagon a couple of allen wrenches.

Mr. ENGEL. I may have to do that. I believe in our State, I can only speak from the experiences that I have with the companies with which I work, I believe that it would be very likely—I can't say that it would be entirely so—but I would say of the 35 companies that we have worked with, there would be more than half of those companies that would not be able to survive if they had to pay another 3- or 4-percent interest on the money that they have to borrow to start their small business, a manufacturing plant, or wholesale business. We work mostly with manufacturers.

I think that in itself would be very difficult. Our banks are very loyal to our community, but they also have limited finances and they are probably as prudent about lending as most South Dakotans are about spending. The banks probably would not go along with many of the loans that would be necessary.

We feel, in our development corporation, that some risks must be taken. I think it would be unreasonable if we took none. I think it would be unreasonable if we took too many risks. But we have looked at every company very carefully. We are not in the business of losing money, although occasionally it does work out that way, but not often. However, we have no other resource. We could form limited partnerships, borrow from banks, work through the Small Business Administration, but we have no other resources. I guess I just feel that most of what we are doing would not have happened if it hadn't been for IDB's.

Maybe this is not——

Senator BUMPERS. No; I think your answer is a very good one, Mr. Engel. I think that is the correct answer. I think that is the way small business is. The Small Business Administration makes loans that nobody else will make. Unless it is available as a lender of last resort, an awful lot of good ideas go by the board.

I suppose that same argument is made here. By the same token, you have to appreciate Senator Pressler's adversary position when everybody writes to say why don't you all do something about the

deficit and when are you going to balance the budget. The other half say when are you going to balance the budget and why don't you do something about the budget, but please don't let them eliminate IDB's or please don't let them eliminate something else.

So, you understand that sometimes it is a very difficult position. Everybody has his own thing. I come down on the same side you do, and I think it might be appropriate to limit the number of IDB's we are going to allow, because the expansion of the use of them has been exponential, as you know.

Mr. Chairman, I thank you very much for your indulgence.

Senator PRESSLER. I thank you very much for your participation.

Let me call on Charles Kireker, executive director of the Massachusetts Industrial Finance Agency of Boston, MA.

STATEMENT OF CHARLES F. KIREKER, EXECUTIVE DIRECTOR, MASSACHUSETTS INDUSTRIAL FINANCE AGENCY, BOSTON, MA

Mr. KIREKER. Mr. Chairman, thank you for this opportunity to testify. I ask that my entire statement be read into the record since I will condense it for the hearing purpose.

Three assertions will highlight my remarks today. No. 1, the small-issue IDB Program has been used overwhelmingly by and for smaller businesses; No. 2, the New Federalism goal of having Congress set policy standards and delegate operational decisions to States and localities is working effectively in the small issue IDB Program as a result of the reforms enacted under TEFRA in 1982 and the Deficit Reduction Act of last year. No. 3, thanks to these reforms, States and localities are establishing stricter priorities to ensure that projects achieve the public purposes of creating new jobs and stimulating extra tax revenues.

Therefore, I will argue that total elimination during the 99th Congress of incentives for smaller businesses to invest, modernize, and compete internationally would be unwarranted, especially when this Congress has previously mandated that the small issue IDB Program be subject to sunset reviews in 1986 and again in 1988. Furthermore, if deficit cutting is the Federal objective, it seems foolish to destroy one of the most effective incentives, lower cost capital, for small businesses to invest in bigger expansions sooner than they would have done otherwise.

That is the key to Senator Bumpers questions. These are indigenous companies that want to expand more than they otherwise could do. Stimulating these extra investments in good projects actually helps to cut the deficit, not raise it.

Let's look at the facts. We all know, from the statistics developed by David Birch at MIT and other studies, that smaller businesses are the Nation's primary job generators. Yet no other business sector in our country faces more obstacles to capital formation, is more vulnerable to high and volatile real interest rates, than small business. That is why small industrial, agricultural, and commercial enterprises have flocked to the IDB Program to survive and prosper since the late 1970's.

Think of the difference if you were looking to buy a home and you discovered a mortgage with interest rates 3 to 6 percentage points lower, the maturity longer, and the bank willing to give you

90 percent financing instead of 75 percent. There is no doubt that you would buy a bigger house or decide you could afford it sooner, or perhaps both.

That is essentially the same cost of capital decision confronting a small businessman when he considers expanding or modernizing his plant and equipment with an IDB. The savings are significant.

That is one major reason Massachusetts emerged from the last recession with the lowest unemployment rate of the industrialized States. The IDB program has proven to be an enormous catalyst in that record. In fact, the Massachusetts IDB Program, supervised by my agency, has been dedicated to smaller businesses, with 77 percent of the 1,200 industrial firms that obtained IDB's in the past 6 years having annual sales of under $20 million. In all, MIFA-approved projects have created an estimated 67,000 new permanent jobs.

Nationally, the small business emphasis also holds true. Preliminary returns from 50 issuers via a survey conducted by the Council of Industrial Development Bond Issuers, which I also represent, shows that 70 percent of IDB recipients have less than 100 employees and over 80 percent had sales under $20 million.

Now, why does small business stand out as the major beneficiary of IDB's? It is because that policy objective has increasingly been emphasized by the Congress, starting with the small issue ceiling on capital expenditures of $10 million per project, and more recently through a comprehensive limit on the amount of IDB's nationwide being used by any single corporation. I might add, Senator, some of the numbers given today about the deficit impact of IDB's have also included pollution control facilities, housing facilities, student loan bonds, also called private activity bonds, of which small issue IDB's are approximately only one-fifth of the volume. Those small issue IDB's are the only ones that over a sustainable period of time generate reflows, as Treasurer Bowman was explaining.

Last year, Congress acted even more decisively by imposing an annual limit, or volume cap, upon the total amount of IDB's of many varieties, and student loan bonds, that each State can authorize. With the advent of this volume cap, all States are working to ensure that we maximize the public's return on investment, because the IDB resource is now limited. The cap is thus having exactly the effect that Congress intended, and I think Senator Bumpers pointed to that in his question.

During 1985, which is the volume cap's first year of operation, and we will see a tightening each year into the future. In my State, we are narrowing the window of eligibility for IDB financing by proposing restrictions on their use, generally, to firms with under $30 million annual sales. Moreover, IDB-financed projects will be required to generate at least one job per 1,000 square feet of new space, making most warehouse and distribution projects ineligible.

These locally determined restrictions in response to the 1984 congressional mandate go beyond our requirements under State law to permit commercial IDB's only in revitalization districts. This restrictive Massachusetts approach, similar to the enterprise zone concept, is increasingly found in other States as they attempt to target their limited IDB resources under the volume cap, thereby

creating geographic incentives for smaller business to invest in the areas that need it most.

Let me conclude by suggesting a way for us to quantify that public purpose return on the Federal Government's small tax expenditure investment in small issue IDB's. I will not claim that all IDB stimulated investment in my State nor around the country would have stopped if IDB's had not been available. I will state with firm conviction that far fewer jobs would have been created and substantially less property, sales, and income tax revenue would have been generated for all levels of government without the IDB's.

This has been proven by a recent Coopers & Lybrand study of Massachusetts firms that have obtained more than one IDB. The results are appended to my remarks. It showed that over 83 percent of these IDB users would have reduced or delayed their expansions had IDB's not been available, some for a period of 3 years or longer. I think the users earlier claimed the same for their companies. This same study showed that employment at these companies had grown at an average rate of 25 percent annually since their first IDB expansion compared to no job growth statewide in these same industrial sectors.

While we cannot estimate, as of yet, precise numbers of extra jobs and tax revenues attributable to IDB financing, a computer methodology to do that is now being perfected. This model builds upon a comprehensive survey of small businesses in one county in Florida which showed that the 167 businesses interviewed would have doubled their expansion investments, in aggregate, if an IDB-type loan at 2 percent below prime were available to them.

Of course, regional or local studies cannot tell the whole story. But these findings in Massachusetts, Florida, and elsewhere have convinced the Board of CIDBI to commission a nationwide survey of IDB companies to determine the real impact of IDB's on the country as a whole on the Federal Treasury. That evaluation is well underway, and a final report should be ready by late summer.

In summary, I urge this panel to recognize that the relative prosperity being enjoyed by much of the country today will be shortchanged if we deny small businesses the critical incentives they need to grow. Since the dynamic growth of small businesses have been a key factor in our most recent economic recovery, we risk revisiting the painful upheavals of the past decade if access to affordable investment capital were to disappear by act of Congress.

[The prepared statement of Mr. Kireker follows:]

STATEMENT BY

CHARLES F. KIREKER,

CHAIRMAN OF THE POLICY COMMITTEE OF THE

COUNCIL OF INDUSTRIAL DEVELOPMENT BOND ISSUERS

BEFORE THE SUBCOMMITTEE ON FAMILY FARMS

SENATE SMALL BUSINESS COMMITTEE

MAY 22, 1985

Mr. Chairman, members of the Committee: Three assertions highlight my remarks today:

(1) The Small Issue Industrial Development Bond (IDB) program has been used overwhelmingly by and for smaller businesses;

(2) The "New Federalism" goal of having Congress set policy standards and delegate operational decisions to states and localities is working effectively in the Small Issue IDB program as a result of the Congressional reforms enacted under TEFRA in 1982 and DFRA in 1984; and

(3) Thanks to these reforms, states and localities are establishing stricter priorities to ensure that projects achieve the public purposes of creating jobs and stimulating extra tax revenues.

Therefore I will argue that total elimination of small issue IDBs in the name of tax simplification is unjustified, especially when Congress has mandated that the program be subjected to sunset reviews in 1986 and again in 1988. Furthermore, if deficit-cutting is the federal objective, it seems foolish to destroy one of the most effective incentives - cheaper capital - for small businesses to invest in bigger expansions, sooner, than they would have done otherwise. Stimulating these extra investments in good projects actually helps to cut the deficit, not raise it.

Let's look at the facts. We all know, from the statistics developed by David Birch at MIT and other studies, that smaller businesses are the nation's primary job generators. No longer must we depend on the Fortune 500 to fuel our country's economic growth. The turnaround in today's economy has been fueled by smaller business.

Yet no other business sector in our country faces more obstacles to capital formation, is more vulnerable to high and volatile interest rates, than small business. That is why small industrial, agricultural and commercial enterprises have flocked to the Small Issue IDB programm to survive and prosper since the late 1970's.

Think of the difference if you were looking to buy a home and you discovered a mortgage with interest rates 3-6 percentage points lower, the maturity longer and the bank willing to give you 90% financing instead of 75% of the cost. There's no doubt that you would buy a bigger house or decide you could afford it sooner, or both.

Well that's essentially the same cost-of-capital decision confronting a small businessman when he considers expanding or modernizing his plant and equipment with an IDB. The savings are significant and the confidence factor of being able to weather the next recession with an affordable IDB mortgage also makes a big difference in the decision to invest.

That is one major reason Massachusetts came through the early 1980's recession so handsomely with the lowest unemployment rate of the industrialized states. Nowhere in the country has the influence of entrepeneurs and small business been more obvious than in New England, and particularly Massachusetts. Less than a decade ago, this region and my state had been written off; people looked at Massachusetts and saw a rapidly declining industrial base and decaying urban centers.

Today, Massachusetts is experiencing an economic rebirth of unprecendented proportions. That rebirth is driven primarily by the growth of small companies with the industrial development bond program proving to be an enormous catalyst.

In fact, our IDB program, supervised by my agency, has been dedicated to smaller businesses. 816 of the 1200 industrial firms obtaining IDBs since 1978 have had fewer than 100 employees, and 77 percent have had annual sales under $20 million. In all, these projects have created an estimated 67,000 new permanent jobs.

Naturally, the small business emphasis holds true as well in most every issuing jurisdiction that we've looked at. Preliminary returns from 50 issuers around the country from a survey now being conducted by the Council of Industrial Development Bond Issuers (CIDBI) shows that 70 percent of IDB recipients have fewer than 100 employees, and over 80 percent had sales under $20 million.

Now why does small business stand out as the major beneficiary of IDBs? Because Congress has increasingly emphasized that policy objective, starting with the small issue ceiling on capital expenditures of $10 million per project over a six-year investment period and more recently by imposing a comprehensive limit of $40 million upon the amount of IDBs nationwide being used by any single corporation.

Last year Congress acted even more decisively by imposing an annual limit, or volume cap, upon the total amount of IDBs, of many varieties, and student loan bonds, that each state can authorize.

With the advent of the volume cap, all states are working to ensure that we maximize the public's return on investment, because the IDB resource is now limited. The cap is thus having exactly the effect that Congress intended during 1985, the volume cap's first full year of operation. In my state, we are narrowing the window of eligibility for IDB financing by giving priority to projects if they are located in areas of high unemployment, or if the companies are in distressed or newly emerging industries that can demonstrate strong growth potential.

In addition, the use of IDBs will generally be restricted to firms with sales of under $30 million annually; and IDB financed projects will be required to generate at least one job per 1,000 square feet of new space, making most warehouse and distribution projects ineligible.

These locally determined restrictions in response to the new Congressional mandate go beyond our already existing requirements under state law to target the use of commercial IDBs for office buildings only to Commercial Area Revitalization Districts. This restrictive Massachusetts approach, similar to the enterprise zone concept, is now being followed by many other states as they attempt to target their limited IDB resources under the volume cap, thereby creating geographic incentives for smaller businesses to invest in the areas that need it most.

To keep my remarks brief, I will cite only Florida, Minnesota, New Jersey and Pennsylvania as other states that have developed various targeting guidelines to maximize the public return on investment.

Let me conclude by suggesting how we can measure that public purpose return on the federal government's small tax expenditure investment.

I will not claim that all $3 billion of IDB-stimulated investment in my state would have disappeared if IDBs had not been available. I will state though, with firm conviction, that much of that investment would have been delayed, and/or the size of these expansions would have been reduced without the IDBs. So ultimately, far fewer jobs would have been created and substantially less property, sales and income tax revenue would have been generated for all levels of government.

A Coopers & Lybrand study of Massachusetts firms that have utilized IDBs more than once showed that over 83 percent of them would have reduced or delayed their expansions had IDBs not been available, some for a period of three years or longer. The same study showed that employment at these companies had grown at an average rate of 25 percent annually since their first IDB expansion, compared to no job growth in the state-wide manufacturing averages for the same industrial sectors.

While we cannot estimate, as of yet, the precise number of extra jobs and tax revenues attributable to IDB financings, a computer methodology to do that is now being perfected. This model builds upon a comprehensive survey of small businesses in Volusia County, Florida, which indicated that the "additionality" factor from providing low-cost tax-exempt financing can be substantial. In aggregate, the 167 businesses that were interviewed, stated they would invest 100 percent more in expansion or modernization if an IDB-type loan at 2 percent below prime were available to them.

Of course, regional or local studies cannot tell the whole story. But these findings in Massachusetts and Florida have convinced the Board of the Council of IDB Issuers to commission a nationwide random survey of IDB companies to determine the real impact of IDBs on the country as a whole. That evaluation is well underway, and a final report should be ready by late summer.

In summary, I urge this panel to recognize that the relative prosperity being enjoyed by much of the country today will be shortchanged if we deny small businesses critical incentives to grow. While the nurturing of the entrepreneurial spirit and the dynamic growth of smaller business have been key factors in our most recent economic recovery, we risk re-visiting the painful upheavals of the past decade if access to affordable investment capital disappears by Act of Congress.

Coopers & Lybrand and The Massachusetts Industrial Finance Agency Report on The Use of Industrial Development Bonds in Massachusetts

Despite the continuing debate over the use of tax-exempt bonds to finance capital expansions by private companies, the impact of this form of financing on these companies has not been adequately assessed.

In an effort to determine this impact, Coopers & Lybrand, working with the Massachusetts Industrial Finance Agency (MIFA), conducted a survey of 131 companies in Massachusetts that have used industrial development bonds (IDBs) to finance expansions. Coopers & Lybrand wrote the survey questionnaire, established procedures for administering the survey to ensure confidentiality, devised the statistical methodology used to analyze the survey responses and conducted the analysis.

Each of the 131 companies has used tax-exempt financing at least twice since MIFA's founding in 1978. As repeat IDB users, these companies have a more extensive track record to assist in determining the impact of IDBs in three major areas: rate of company growth, new job creation, and how IDBs impact these two factors.

For this reason MIFA and Coopers & Lybrand initially decided to focus on only these repeat users. This focus naturally causes some bias, since these firms have a history of expansion that may not be completely analogous to the entire population of IDB users. However, in terms of total employment, gross sales and age, the survey population does not differ substantially from the total portfolio of companies that have utilized IDBs in Massachusetts.

Of the 131 companies surveyed, 81, or 62 percent, responded to the ten-page survey. The questions were designed to provide information on four major areas of interest:

1. Company Profile – What types of companies are using IDBs and how they are using them.
2. Analysis of Company Growth – How these companies have grown in terms of sales and net income.

Table 1
Date of Founding

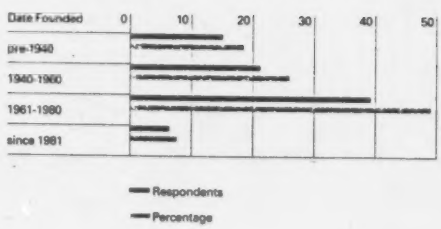


Table 2
Breakdown of Respondents by SIC Code

	Respondents	Percentage
Traditional Manufacturing SIC Codes: 20, 22, 23, 25, 26, 27, 30, 34	48	59.3%
Technology-Related SIC Codes: 36, 38, 73	19	23.4%
Wholesale Trade, Business Services & Miscellaneous SIC Codes: 39, 50, 51, 89	14	17.3%

3. Analysis of Employment Growth – How employment at the IDB locations has grown since the time of bond approval.
4. Impact of IDB Financing – How the availability of IDBs affects a company's decision to expand.

Company Profile

In general, most of the companies surveyed were in traditional manufacturing industries and were established since 1961. Significantly, all but three were headquartered in Massachusetts and chose to make their IDB investments in-state rather than relocate.

As Table 1 shows, the majority of the responding companies were formed since 1960 and, in fact, 7.4 percent were formed since 1981.

Traditional manufacturers accounted for 60 percent of the total respondents, while 23 percent categorized themselves as technology or electronics-related industries and 17 percent were involved in wholesale trade or business-related services. (Table 2)

The survey respondents were also predominantly smaller-sized companies. The median 1984 gross sales figure was $14.1 million, and the median 1984 employment was 97.

As Table 3 shows, 41 percent had fewer than 100 employees at the time of the survey, and 69 percent had fewer than 200 workers. In addition, nearly 69 percent had sales of under $20 million in fiscal year 1984. In fact, four out of five had sales of under $50 million. (Table 4)

Analysis of Company Growth

The survey asked companies to provide gross sales and net income figures from 1978 (or the year they were founded) to 1984.

As shown in Table 5, the companies using IDBs are on a fast track of sales growth. Of the 69 companies that provided this information, over one-half experienced a compound growth rate of more than 20 percent, and less than 3 percent showed a net decrease in sales. In fact, from 1978 through 1984, these firms showed an average of 23.5 percent in compound annual sales growth.

Even in the more volatile area of profitability, 31 of the 63 responding companies showed annual increases in net income of over 10 percent. (Table 5)

Table 3
1984 Employment

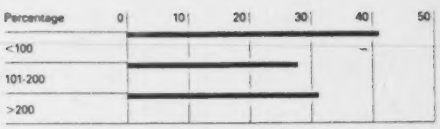


Table 4
1984 Estimated Gross Sales

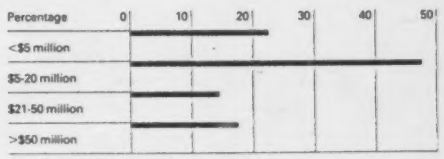
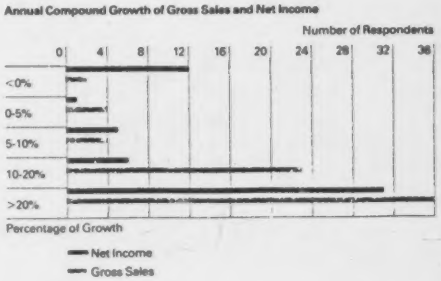


Table 5
Annual Compound Growth of Gross Sales and Net Income



These companies believe overwhelmingly that their future growth will exceed the high levels of the past six years.

Though 88 percent indicated that they believed the economy as a whole would grow at the same or lesser rate in 1985, three out of four predicted that their company will grow at a higher rate in 1985.

This confidence is demonstrated by the amount of capital investment planned by these firms in coming years: over $81 million in 1985; $64 million in 1986; and $60 million in 1987.

Analysis of Employment Growth

The critical issue of new job growth provides the most significant data. The companies were asked to provide employment growth figures at the location utilizing IDB financing at the time the first IDB was approved, then one and two years later, and finally the current level of employment.

The 63 companies that provided this information showed a compound average growth in new jobs of 24.3 percent in the period between the date of bond approval and the present. By comparison, manufacturing employment statewide actually *declined* at a compound average rate of nearly 1 percent. (Table 6)

In fact, in every case the average growth of those companies we surveyed, broken down by industry group, far exceeded the statewide averages for the same industries.

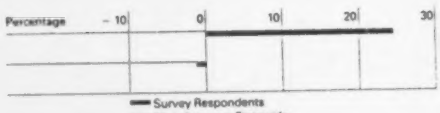
The strongest employment growth was among the paper manufacturing firms utilizing IDBs, which showed a 45.3 percent growth in employment. That same industry group statewide had a 3.2 percent decline in total employment from 1978 to 1983. (Table 7)

IDB Impact on Investment Decision

The previous sections of this study provide a revealing portrait of the types of companies that are using IDB financing. The third part of the survey was designed to determine the impact of IDBs on the decisions of these companies to expand.

Table 6

Average Compound Annual Change in Employment Among Survey Respondents* vs. Average Compound Change in Statewide Manufacturing Employment**



*Change in employment at IDB Location.
**Massachusetts Division of Employment Security, Compendium of Labor Market Trends, 1978-1983.

Table 7

Average Compound Annual Change in Employment at IDB Location vs. Average Compound Change in Statewide Industry Employment

SIC Code	Industry	Number of Respondents*	Avg. Change at IDB Facility	Statewide Avg. Change**
26	Paper & Allied Products	10	+45.3%	–3.2%
27	Printing & Publishing	8	+24.2%	+1.8%
30	Rubber & Plastics	6	+22.9%	–1.5%
34	Fabricated Metal Products	6	+20.9%	–3.1%
36	Electrical Equip. & Supplies	7	+16.1%	+2.5%
38	Instruments & Related Products	5	+20.0%	+0.2%

*Only includes those industries with five or more responses.
**Massachusetts Division of Employment Security, Compendium of Labor Market Trends, 1978-1983.

Table 8

Breakdown of Uses of IDB Financing (Total # of Responses)

Description of Project	IDB #1	IDB #2
New Addition, Renovation, or Equipment at Existing Facility	42	44
Construction of New Plant	28	29
Acquisition of Existing Company	4	3
Company Moves to Massachusetts	0	0
Start-up	6	0
Other	1	3
Total	81	79

The vast majority of the respondents used IDB financing to construct an addition, purchase equipment for or renovate an existing facility, or to construct a new facility. In not a single instance was an IDB used to finance the move of a company from another state. (Table 8)

The companies were also asked how their expansions would have been affected had IDBs not been available.

Over 77 percent indicated that without IDBs, their first and/or second expansions would have been delayed; and of the companies that reported no delay, 6.2 percent would have reduced the size of their expansions. (Table 9) Of those companies that indicated that the projects would have been delayed, two out of five estimated a delay of more than one year. In addition, over 13 percent estimated a delay of more than three years. (Table 10)

In addition, most of the responding companies have used the savings from the lower interest rate IDBs to finance additional job-creating ventures.

The survey asked respondents to rank a variety of choices from one to three on how the savings were used. Each ranking was given a value to provide a weighted ranking for each category.

The weighted rankings indicated that 95 percent of the companies used the savings to reinvest in their companies, and the savings were most frequently used to increase production through further new employment. (Table 11)

In sum, the data provided a strong indication that IDBs are a significant factor in the ability of smaller, financially healthy companies to accelerate capital expansions and create significant new employment in Massachusetts.

Coopers
&Lybrand

This report was prepared in cooperation with Coopers & Lybrand

Table 9

Predicted Changes in Expansion Without IDB Financing (Percentage of All Respondents* for Both IDBs)

	Reduce Expansion	No Reduction in Expansion	Total
Delay Expansion	53.7%	23.4%	77.1%
No Delay in Expansion	6.2%	11.7%	17.9%
Total	59.9%	35.1%	95.0%

*4.9% did not respond.

Table 10

Estimated Expansion Delays Without IDB Financing (Percentage of All Respondents for Both IDBs)

	Less than One Year	1 to 3 Years	More than 3 Years
Delay in Making Same Investment	14.2%	6.8%	1.2%
Expand Less & Delay	6.8%	34.6%	12.3%
Total	21.0%	41.4%	13.5%

Table 11

Investment of Interest Rate Savings

Category	Weighted Rankings
Savings toward increasing production through further new employment	25%
Savings toward future capital expansion	22%
Savings toward working capital	15%
Savings toward lowering product cost	14%
Savings toward marketing expansion	10%
Savings toward research & development	9%
Savings toward increased equity	5%
Total	100%

Senator PRESSLER. Thank you very much.

Next, I would like to call on Mr. Ronald Bailey, executive director of the Illinois Farm Development Authority of Springfield, IL.

STATEMENT OF RONALD L. BAILEY, EXECUTIVE DIRECTOR, ILLINOIS FARM DEVELOPMENT AUTHORITY, SPRINGFIELD, IL

Mr. BAILEY. Thank you, Senator Pressler. I appreciate the opportunity to appear before you today.

What I would like to do is just briefly explain what the State of Illinois and the Illinois Farm Development Authority are trying to do for agribusiness in Illinois, our rural agribusinesses, and what we hope to do in the future through industrial development bond issues.

The Illinois Farm Development Authority is a State bonding authority. We have issued approximately 1,670 bonds in excess of $99 million in approximately 2½ years. Our average interest rates on those bonds has averaged approximately 8.5 percent. Our loan sizes are very small. We work basically with rural agribusinesses and with farmers. The size of our loans have been anywhere from $100,000 up to $900,000, so they are small issues.

We have a new agribusiness program which we just are really getting underway right now. We are very excited about it and some of the uses that we see it will do for Illinois agribusiness in the future. We have approved 63 agribusiness loans for $8.7 million to date for new rural agribusinesses and for expansions of existing rural agribusinesses.

The basic eligibility requirements for agribusinesses in this program are that they have to employ fewer than 100 employees or have grossed less than $2 million in the preceding fiscal year. So, you can see that we are talking very small agribusinesses that we are trying to help out.

What we feel we are trying to do through this program is get affordable financing for our small rural agribusinesses where it has been too expensive for them before to look at industrial bond issues. We have been able to put together a tool we think is affordable and efficient for them to get this type of financing.

Also, our bonds cannot exceed $1 million per agribusiness. Once again, what we are trying to do is spread our funds out as much as we can across the State of Illinois.

The target group we are trying to reach, of course, is the smaller rural agribusiness. To give you some examples of the types of agribusinesses that we have been able to finance through our program, we have recently financed a new farm supply business with a $900,000 IDB at an 8-percent interest rate which created 40 new jobs in a county where the unemployment rate was 15 percent. It is a major expansion for a farm supply business which also will be one of the bigger employers in this small community.

We have also been able to finance recently an expansion of a seed corn company in southeastern Illinois which borrowed $750,000, also at 8 percent interest, which created 20 new jobs. The unemployment rate in that county is 17 percent.

We have been able to finance four implement dealerships. Case-IH are now combining their implement dealerships, and many of

the dealerships are having to expand. These loans have averaged $250,000 in size. We are also saving jobs as well as creating jobs through that program.

In the future with this program, we are hoping that we can use this as a source of low cost funds for agribusinesses that have not had that much of an access to this type of market in the past. As I said before, this is a newer program in Illinois, and it has been very successful so far. Agriculture is going through some very extreme financial difficulties right now. Agribusinesses are going out of business in Illinois at a very rapid pace. We are hoping that we can use this program to bring new agribusiness into our State and help expansions of existing agribusiness. Once again, that would be the smaller agribusinesses.

We also have a farmers program which I would just like to touch on. Through our young farmer program, we can sell industrial bonds for young farmers to purchase real estate and new depreciable property. One of the things that is very hard to measure when we finance a new combine for a farmer is what that really does to the local economy. It basically has a ripple effect. When we finance a piece of new machinery or equipment for an agribusiness, that goes back and it helps out the local implement dealer who also employs salesmen, clerks, and service department people. It goes back to the manufacturer and also to the factory worker who is employed by the manufacturer. So, what we have is a ripple effect throughout the whole economy with the industrial development bonds we are issuing.

You talked earlier about the efficiency of IDB's. We feel that our efficiency is very good with industrial development bonds which we are issuing in Illinois. Our authority is a self-sufficient authority. We do not operate off any State funds or Federal funds. We charge a 1.5-percent closing fee to the customer, and that is how we operate our program.

The lenders who buy our bonds I feel also are working this program efficiently. We recently completed a study which showed our top eight banks that participated in our program last year purchased 25 percent of our bonds. Out of those top eight banks, four of those banks have not paid any Federal income tax in the past 2 years. They are not high earning banks, but they are looking at purchasing aggie IDB's for basically a community service. They are trying to bring new jobs into their local communities and trying to expand the existing businesses that are already there. So, we are talking about very little loss of revenue to the Federal Government, because these banks are not high earning banks. They are not in the 46-percent tax bracket that a lot of lenders are in.

We talked about loss of revenue to the Federal Government. We completed a study that was just based on aggie IDB's. Aggie IDB's which have been issued across the Nation are a little bit less than $250 million to date. We are talking of a loss of revenue of approximately $5.6 million annually which is caused by aggie IDB's which is a very minimal loss of revenue when it is compared to the type of gain which is created through agricultural and industrial development bonds.

The effect of aggie IDB's has been substantial in Illinois on our rural economy. We feel that through the sale of our aggie IDB's we

have been able to not only help farmers but help agribusinesses also. As we help new farmers get started into agriculture, it also will expand the base of business which they do in their local communities with several different agribusinesses, which means profits, more employment for the entire community and for our economies.

The extension of aggie IDB's across the board we feel is very important to our economy and to the future of agriculture in Illinois. We are hoping that the extensions of IDB's can be considered in the future. The elimination of IDB's, I think, would at this time hurt agriculture an awful lot because of the financial crisis which agriculture is going through today and I perceive it will be going through for the next several years.

Thank you.

[The prepared statement of Mr. Bailey follows:]

STATEMENT OF RONALD L. BAILEY, EXECUTIVE DIRECTOR, ILLINOIS FARM DEVELOPMENT AUTHORITY, CHAIRMAN, NATIONAL COUNCIL OF STATE AGRICULTURAL FINANCE PROGRAMS

Illinois Farm Development Authority
State Fairgrounds, Springfield, Illinois 62706 217-782-5792

Board of Directors:
Marjorie A. Albin
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Roy Safanda
Patrick R. Scates Jr.
Carolyn Stone

May 20, 1985

Members of the Family Farm Subcommittee:

I would like to thank you for allowing me to testify before you.

The Illinois Farm Development Authority (IFDA) is a state bonding authority which is authorized by the State of Illinois to issue federally tax exempt bonds for agriculture and agribusiness. The IFDA hs worked strictly with private placement bonds thus far.

Since the IFDA first started approving bonds and loans in December, 1982, we have approved 1,672 loan requests for in excess of $99,000,000 (Attached is Exhibit I.) The average interest rate on these loans has been 8.75%. Of the loans approved, 63 for $8,700,000 have been for Illinois agribusinesses.

The eligibility requirements for the Agribusiness Loan Program are very simple. To be able to qualify, the agribusiness cannot employ more than 100 employees or they could not have grossed more than $2,000,000 based upon their previous years' tax returns. The agribusiness needs to only meet one of these requirements to be eligible.

The IFDA will also not issue more than $1,000,000 in bond requests for any one agribusiness.

The mechanics of the program are quite simple also. The private lender will set his own interest rate and terms on a tax exempt bond he will buy from the IFDA. The lender buys the bond from the IFDA, and the IFDA turns around and loans this money back to the farmer or agribusiness at the exact same interest rate and terms as the tax exempt bond.

After the IFDA makes the loan to the farmer or agribusiness, the IFDA then assigns all the collateral interest we have in the loan back to the lender as collateral on the bond. When the agribusiness or farmer makes a payment on his loan, he makes the payment directly to the bank. That is the bank's payment on their tax exempt bond (See Exhibit II - Program Summary.)

The target groups we are attempting to reach with our Agribusiness Loan Program are the small, rural agribusinesses in Illinois that are the bread and butter of our rural economy. By helping smaller agribusinesses expand and develop, we feel we are creating many more new jobs for rural Illinois, and are saving many existing jobs.

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The average size loan request through our Agribusiness Loan Program is $138,000. This is not a large request, but for a rural fertilizer dealer or implement dealership, this is a major investment.

Rural agribusinesses have taken a severe beating the last three years because of the farm economy. By giving rural agribusinesses a small incentive to expand or start a new agribusiness, such as a low interest rate loan, this can mean the difference between success and failure for many small agribusinesses.

Leaders who purchase Aggie IDB's for the most part are small rural banks. The average size bank that participates in our programs has deposits of $57,000,000 and is located in a community of 3,200 people. These banks are using Aggie IDB's to bring new agribusiness into their community and to help existing agribusinesses expand.

In 1984, eight Illinois banks purchased 25% of the total bonds which the IFDA issued ($27,500.000.) Of these eight banks, four have not paid any federal income tax for the past two years. These four banks are not extremely profitable and do not need the tax exempt income. They are buying Aggie IDB's as a service to their local farmers and agribusinesses, and are trying to help stimulate their local economy through the IFDA bond programs. These bankers, as well as others who participate in our programs, feel that they are helping to stimulate growth in their local economies through Aggie IDB's.

Aggie IDB's are exempt from federal income tax, which does create a loss in revenue to the federal government. Most issuers of bonds feel that the jobs created through the sale of IDB's much outweigh the loss of revenue to the federal government.

When the IFDA finances the expansion of an existing implement dealership through the Agribusiness Loan Program, this will create construction jobs in the area and permanent jobs after construction. These permanent jobs created will affect the local grocery stores, gas stations, restaurants, schools, banks, etc. These people will all pay both state and federal taxes which increase revenue to both the state and federal governments.

Attached is a study which shows the actual loss in revenue to the federal government caused by all Aggie IDB's issued across the United States to be $5,600,000 annually (See Exhibit III.) This is a very minimal loss when the benefits are taken into consideration.

In Illinois, the effect of Aggie IDB's has had a very positive impact on our rural economy. Lenders tell us that Aggie IDB's have helped to take excess real estate off of the market, sell new machinery and equipment and finance expansions of existing agribusinesses, as well as finance new agribusinesses. Lenders who do not need tax exempt income are purchasing Aggie IDB's to stimulate their local economies because they know they will benefit over the long run.

Also attached is a survey which the IFDA recently had done on the effects of the Young Farmer Program (Aggie IDB) on farmers who had applied for loans in 1984 (See Exhibit IV.) This is a very informative report that I think you will find of interest.

Industrial Development Bonds serve a very useful purpose in rural America, and are one of the few opportunities available to rural America today. The sunset of small issue IDB's will have a very negative effect on our rural economy.

Once again - thank you for the opportunity to testify before you.

Sincerely,

Ronald L. Bailey
Executive Director of the Illinois Farm Development Authority
Chairman of the National Council of State Agriculture Finance Programs

RLB:mo
Attachments

EXHIBIT I

MAY 1985

LOANS BY COUNTY

Top Figure - # Loans
Bottom Figure - $ in Loans

1672 Loans*
$99,102,591

Active Counties	90
Inactive Counties	12

Exhibit II

Illinois Farm Development Authority
Loan Programs

INDEX TO PROGRAM SUMMARY
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For more information contact:

ILLINOIS FARM DEVELOPMENT AUTHORITY
State Fairgrounds – Springfield, Illinois 62706
(217) 782-5792

ILLINOIS FARM DEVELOPMENT AUTHORITY
LOAN PROGRAM SUMMARY

GENERAL

The Illinois General Assembly created the Illinois Farm Development Authority (IFDA) on September 16, 1981 as a means of increasing the availability of loans for the purchase of agricultural land, agricultural improvements, and depreciable personal property to be used for agricultural purposes in Illinois. In 1983, the powers of the IFDA were expanded to include loans to soil or water conservation projects and certain agribusinesses.

The powers of the IFDA are vested in and exercised by a board of seven members who are appointed by the Governor with the consent of the Senate. The current members and their occupations are:

Marjorie Albin	Farmer/Banker, Newman
Ross M. Camp	Farm Manager, Champaign
Robert Nickel	Farmer, Concord
Harold Rice	Farmer, DuQuoin
John Rundquist	Farmer, Butler
Roy Safanda	Farmer/Attorney, Geneva
Patrick Scates	Farmer, Shawneetown

I

LOAN PROGRAM SUMMARY IN BRIEF

The Illinois Farm Development Authority has three loan programs. They are the Beginning Farmer Loan Program, the Soil Conservation Loan Program, and the Agribusiness Loan Program. All three programs use tax-exempt financing to encourage private lenders to make agricultural loans. Beginning Farmer loans are available to qualified individuals for the purchase of certain depreciable agricultural property, agricultural improvements and agricultural land. Soil Conservation loans may be used to finance certain or soil water conservation projects and equipment. Agribusiness loans are available to small Illinois agribusiness operations for the purchase of qualified agribusiness property. (All three programs are described in greater detail below.)

Under each program, the private lender first makes its own loan analysis, determines what collateral and guaranties (if any) are necessary, and sets the interest rate and payment schedule for the loan. Next, the IFDA issues a tax-exempt bond having the same face amount and terms as the proposed loan. The private lender purchases this bond, and the bond proceeds are lent to the Beginning Farmer (Beginning Farmer Loan Program), landowner or operator (Soil Conservation Loan Program) or Agribusiness (Agribusiness Loan Program). Because the interest paid on the bond is exempt from federal income tax, the interest rate on the loan is below standard market rates.

In all cases, the loan and the bond are not obligations of the IFDA or the State of Illinois, but are secured solely by the loan and the collateral required by the private lender.

II

LOAN PROCEDURES

1. **Lenders** – As described above, the IFDA makes its loans available through private lenders. Any federal or State chartered bank, Federal Land Bank, Production Credit Association, Bank for Cooperatives, federal or State chartered savings and loan association or building and loan association, Small Business Investment Company, or any other institution qualified with the State of Illinois to originate and service loans, including, but not limited to, insurance companies, credit unions and mortgage loan companies, may be a lender. "Lender" also includes a wholly owned subsidiary of a manufacturer, seller or distributor of goods or services that makes loans to businesses or individuals.

2. **Participating Lender Letter of Interest** – Lenders interested in the program must complete a Participating Lender Letter of Interest and return it to the IFDA office in Springfield. A lender may receive applications from borrowers after its Letter of Interest has been submitted to and approved by the IFDA.

3. **Application Forms** – Lenders must use the application form provided by the IFDA. Lenders may use their own forms *in addition* to the approved IFDA application form for their own internal loan review purposes, but must see that the IFDA application form is completed in full. Lenders may also use their own financial statement and other forms to document the eligibility of the borrower or his or her ability to make principal and interest payments.

4. **Application Period** – Applications will be processed as received. There is no special time period during or by which applications must be submitted. All applications received by the first Wednesday of each month will generally be considered at the IFDA Board meeting held on the second Wednesday of that month.

5. **Bond Documents** – After the IFDA has approved the loan application and authorized the issuance of the bond, the lender will receive a Bond Documents Package containing the following documents:

(1) Loan Agreement between IFDA and Borrower

(2) Lender Loan Agreement between IFDA and Lender

(3) Closing Certificate of Lender

(4) Certificate of Participant (optional)

(5) Closing Certificate of Borrower

(6) Closing Certificate of IFDA

(7) Arbitrage Certificate

(8) Promissory Note of Borrower to IFDA

(9) Guaranty of Promissory Note (optional)

(10) Specimen Bond

(11) Specimen Bond Opinion

(12) Requisition Forms

Accompanying the Bond Documents Package are instructions relating to the signing of the documents and the making of the loan. Note that all the key terms of the loan, such as interest rate, length of loan, downpayment and repyament schedule are negotiated by the borrower and the lender. The terms of the Loan Agreement, the Promissory Note and the Bond generally conform to the loan terms specified by the borrower and the lender in the Application.

6. **Use of Security Documents** – A separate industrial development bond is issued for each loan, and as a result, there are no aggregated loans for a large bond sale. To facilitate the making of the loan, the Lender Loan Agreement provides that the lender will act as an agent and fiduciary for the IFDA for all purposes in connection with the loan. The principal and interest of the Bond are payable solely out of the revenue derived from the borrower's Promissory Note, which is generally secured by collateral furnished by the borrower. The Bond which is issued by the IFDA and purchased by the lender is a non-recourse obligation. The principal and the interest on the Bond do not constitute an indebtedness of the IFDA or a charge against its general credit or general fund.

If the lender determines that a Guaranty of the Promissory Note is required, it must use the form of Guaranty included in the Bond Documents Package. In addition, the lender may use any of its own security documents which it may feel necessary and appropriate under particular loan circumstances. Any additional requirements not specifically provided for in the Loan Agreement, such as insurance coverage, can be required.

The IFDA recommends that any security documents required to be delivered in connection with a loan clearly state that they are given as additional security for the indebtedness evidenced by the Promissory Note, the Loan Agreement, the Lender Loan Agreement and the IFDA Bond and to further secure the agreements, covenants and obligations of the Borrower contained in the Loan Agreement. The security documents should run directly between the Borrower and the Lender or the Guarantor and the Lender. The Lender may also wish to add a "cross-default" provision to these documents, making an event of default under the Loan Agreement, the Promissory Note or the Lender Loan Agreement an event of default under the security agreements.

7. **Project Fund and Requisitions** – After all the necessary bond documents have been signed by the borrower and the lender and approved by the IFDA, the IFDA will authorize the lender to make the loan. This is accomplished by the deposit of the purchase price of the Bond in the Project Fund, a separate

non-trusted, non-interest bearing checking account which must be established by the lender with respect to each loan. No Bond proceeds may be used for a non-qualified purpose or by a non-qualified user.

Moneys in the Project Fund may be disbursed only after the borrower files an IFDA Requisition form with the lender in which he or she certifies that the money to be withdrawn will be expended only for the Project approved in the borrower's application. Any moneys which remain in the Project Fund following completion of the Project must be used immediately to prepay the principal of the bond.

8. **Fees** – At the time the loan is made, the IFDA will receive an administrative fee covering the administrative costs connected within the issuance of the Bond and the acquisition of the Promissory Note. The fee, which is equal to 1½% of the amount of the loan, may be financed with loan proceeds, and (except for the portion which is remitted as a $200 application fee) is collected by the lender and remitted to the IFDA at the time the loan is made.

The IFDA bond counsel will review each Bond for legality and exemption of interest from federal income tax. The IFDA will pay its Bond counsel from the administrative fees collected from the borrower by the lender. It should also be noted that any recording of filing fees associated with the loan will be paid by the borrower or lender and not by the IFDA.

9. **Prepayment of Loans** – The Bond Documents and the structure of the financing require any installment payment under the Loan Agreement and Promissory Note to be applied against a like installment payable under the Bond. Under the Loan Agreement and the Lender Loan Agreement, the loan is subject to mandatory prepayment on the happening of certain events and the lender agrees that any such prepayments will be applied to the payment of the Bond. The Loan Agreement requires mandatory prepayment in full with a premium if interest on the Bond becomes subject to federal income taxation as a result of any action (or failure to act) of the borrower which causes interest on the Bond to become taxable. (See discussion of INTERNAL REVENUE SERVICE RESTRICTIONS below). The premium will be equal to the difference between the actual interest payable on the loan up to the date of prepayment and the amount of interest which would have been payable if the lender had charged its normal market rate. In addition, the Loan Agreement provides for optional prepayment without premium (at the discretion of the lender) in the event of damage, destruction or condemnation of all or any part of the Project. The Loan Agreement also provides for prepayment, in whole or in part, without premium at the option of the eligible borrower, on written notice to the lender.

10. **Assumption of Loans and Transfer of Property** – Loans may not be assumed without the prior approval of the IFDA, and then only if the purchaser of the property is an eligible applicant for an IFDA loan. The benefits of the loan made at the tax-free rate from the proceeds of an IFDA bond must remain with the qualified borrower, and no person other than the borrower may obtain the benefits of the IFDA loan.

III

INTERNAL REVENUE SERVICE RESTRICTIONS

As described above, it is the exemption from federal income tax of interest on IFDA bonds which make low interest IFDA loans possible. The Internal Revenue Service has imposed rigid requirements on how bond proceeds may be used in a tax-exempt financing. If any of these rules are ignored by a borrower or a lender in an IFDA financing, there is a substantial danger that interest on the IFDA bond will not be tax exempt. It is the ultimate responsibility of the borrower to see that none of the rules listed below are broken. If a borrower fails to satisfy any Internal Revenue Service requirement, his loan will be subject to mandatory prepayment in full with a premium. Borrowers are required to sign certificates at closing stating that the following rules have been and will be faithfully observed:

1. **IFDA Board Approval.** The IFDA Board must approve the loan *before* the borrower acquires or constructs the property to be financed. *Once the loan has been approved by resolution of the IFDA Board of Directors,* the borrower may use short-term interim or "bridge" financing to acquire the agricultural, agribusiness or conservation property. The terms of the interim financing should specify the purpose for which the loan proceeds are to be used.

2. **Not for Working Capital or Inventory.** IFDA loans *cannot* be used for inventory or to provide working capital. In other words, IFDA loan proceeds cannot be used to purchase feed, seed, fertilizer, fuel, feeder cattle, pigs, and lambs, etc., or to pay salaries or other operating expenses.

3. **No Investments.** IFDA loan proceeds may not be invested by the borrower between the time the loan is funded and the time the loan proceeds are used to purchase agricultural, agribusiness or conservation property.

4. **Qualified Purposes Only.** All of the IFDA loan proceeds must be expended for the purposes stated in the IFDA application as approved.

5. **Used Property Restrictions.** IFDA loan proceeds *can* be used to purchase used property *only* if (i) the used property is purchased in connection with Agricultural Land or (ii) substantial rehabilitation of a loan-financed building will occur.

6. **Non-Agricultural Land.** If land which is not Agricultural Land is purchased (such as for a farm equipment dealership) less that 25 percent of the loan proceeds may be used to purchase that land. "Agricultural Land" is defined as land suitable for use in farming and which is or will be operated as a farm.

7. **Agricultural Land.** IFDA loan proceeds can be used to purchase Agricultural Land only if the borrower is an individual who qualifies as a "First Time Farmer." (See "Beginning Farmer Program, Applicant Eligibility).

8. **Purchase from Related Persons.** IFDA loan proceeds can not be used to purchase property of any type (including machinery, equipment or land) from a Related Person. The IRS states that the following, among others, are deemed to be "Related Persons" of an individual: grandfather, grandmother, father, mother, brother, sister (whether whole or half blood), child, grandchild, or spouse. In addition, a partnership and each of its partners (and their spouses and minor children) are Related Persons as are an S corporation and each of its shareholders (and their spouses and minor children). "Related Person" also includes certain related corporations and partnerships. For example, an applicant (whether an individual or a corporation) could not finance the acquisition of land or property from a corporation (which was not an S corporation) if that applicant, or any of those having the relationships indicated, were to own more than 50% of the stock of the selling corporation. It should be pointed out that the foregoing list is not exclusive. There are certain other entities and individuals that could also be considered "Related Persons." It should also be noted that certain individuals are not "Related Persons." For example, an uncle, aunt, nephew, niece, brother-in-law, or sister-in-law would not be treated as a "Related Person."

The IFDA will review the information supplied in its application to determine whether all Internal Revenue Service requirements have been satisfied. For this reason, it is vital that the application be completed with care.

IV

BEGINNING FARMER PROGRAM

The aim of the Beginning Farmer program is to help new, low net worth farmers get started in farming – and hopefully help keep them in farming. By making available loans with lower-than-market interest rates, the IFDA is helping farmers who will become the backbone of our state.

The sections below outline the basic rules governing (1) what types of property can be financed with a Beginning Farmer loan; (2) who can apply; and (3) loan maximums. In reading these sections, pay special attention to the definitions of key terms such as "Agricultural Land," "Beginning Farmer" and "Net Worth."

Eligible Loan Activities for Beginning Farmer Program

Only the following types of agricultural property can be financed with a Beginning Farmer Loan:

1. **Depreciable Agricultural Property**

(a) **IFDA Definition.** The IFDA regulations define "Depreciable Agricultural Property" to mean personal property suitable for use in farming for which an income tax deduction for depreciation is allowable in computing federal income tax under the Internal Revenue Code of 1954, as amended. Examples include but are not limited to the following: farm machinery, trucks,

etc. Feeder livestock, seed, feed, fertilizer and other types of inventory or supplies do not qualify as Depreciable Agricultural Property.

(b) **New Depreciable Agricultural Property.** The IFDA will finance the purchase of any *new* Depreciable Agricultural Property.

(c) **Used Depreciable Agricultural Property.** The IFDA can also finance *used* Depreciable Agricultural Property if it is bought in conjunction with Agricultural Land (within one year of the earlier of (i) the date the Property is acquired or (ii) the date the Bond is issued) and if it will be used in the operation of a farm to be operated on the Agricultural Land being purchased.

2. **Agricultural Improvements**

(a) **IFDA Definition.** The IFDA regulations define "Agricultural Improvements" to mean any improvements, buildings, structures or fixtures suitable for use in farming which a ocated on Agricultural Land.

(b) **New Agricultural Improvements.** The IFDA will finance the purchase of *new* improvements located on Agricultural Land.

(c) **Used Agricultural Improvements.** The IFDA can also finance *used* Agricultural Improvements – but only in situations in which:

(i) the improvements are bought in conjunction with Agricultural Land (within one year of the earlier of (i) the date the improvement is acquired or (ii) the date the Bond is issued) and will be used in operation of a farm to be operated on the Agricultural Land being purchased; or

(ii) a sufficient amount of qualified rehabilitation expenditures are incurred by the borrower with respect to the Agricultural Improvements within two years from the date of issue of the Bond.

3. **Agricultural Land**

The IFDA regulations define "Agricultural Land" to mean land suitable for use in farming and which is or will be operated as a farm. Any Agricultural Land being financed must be located within the boundaries of the State of Illinois.

Applicant Eligibility for Beginning Farmer Program

1. **"Beginning Farmer" (net worth).** The applicant must be a "Beginning Farmer." Under the IFDA regulations, the term "Beginning Farmer" means an individual who is engaged in farming or wishes to engage in farming and whose net worth (computed under rules prescribed by the IFDA) is "low or moderate." The following rules apply for computing net worth for these purposes:

(a) Low or moderate net worth means an aggregate net worth of an individual and the individual's spouse and children, if any, of less than two hundred fifty thousand dollars ($250,000).

(b) Net worth means total assets minus total liabilities as determined by the lender, in accordance with rules of the Authority and accepted accounting procedures.

(c) Total assets shall include, but not be limited to the following: cash crops or feed on hand; livestock held for sale; breeding stock; marketable bonds and securities; securities (not readily marketable); accounts receivable; notes receivable; cash invested in growing crops; net cash value of life insurance; machinery and equipment, cars and trucks; farm and other real estate including life estates and personal residence; value of beneficial interest in a trust; government payments or grants; any other assets. Total assets shall not include items used for personal, family or household purposes by the applicant, but in no event shall such property be excluded to the extent a deduction for depreciation is allowable for federal income tax purposes. All assets shall be valued at fair market value by the participating lender. Such value shall be what a willing buyer would pay a willing seller in the locality. A deduction of ten percent may be made from fair market value of farm and other real estate.

(d) Total liabilities shall include, but not be limited to the following: accounts payable; notes or other indebtedness owed to any source; taxes; rent; amount owed on real estate contract or real estate mortgages; judgments; accrued interest payable; and other liabilities.

2. **Residency**. The applicant must be a permanent resident of Illinois at the time the completed IFDA loan application is submitted to the lender.

3. **Age**. The applicant must be at least eighteen (18) years of age at the time the completed IFDA loan application is submitted to the lender.

4. **Individuals**. The applicant must be an individual(s). The IFDA cannot loan money to corporations, partnerships, trusts, etc. under the Beginning Farmer Program.

5. **Capital Requirements**. If the loan is sought for the acquisition of Agricultural Land, the applicant may be required to document, to the satisfaction of the lender and the IFDA, that he will have access to adequate working capital, farm equipment, machinery or livestock. If the loan is sought for acquisition of Depreciable Agricultural Property, the applicant should document access to adequate working capital and Agricultural Land.

6. **Active Participation.** If the applicant(s) is purchasing Agricultural Land, he (they) must be the principal user(s) of that land and must use the property being financed in a farming operation in which each applicant actively participates. If a husband and wife jointly apply for a Beginning Farmer loan to finance Agricultural Land, both must actively participate in the farm operation. If husband only applies for a loan for Agricultural Land, he must retain full title to the financed property while the Bond is outstanding.

7. **Ownership of Land.** Any Agricultural Improvements or Depreciable Agricultural Property which are to become a fixture or an integral part of real estate may be financed by the IFDA only if the applicant owns or leases the real estate on which they are to be located.

8. **Prior Ownership of Agricultural Land.** An applicant wishing to finance the purchase of Agricultural Land must *not* have had, prior to the acquisition of the farmland purchased, any direct or indirect ownership interest in farmland in the operation of which he or she materially participated. For purposes of this rule, "ownership or material participation by an individual's spouse or minor child shall be treated as ownership and material participation by the individual."

An exception to the prior ownership rule exists for small farms ("smaller than 15% of the median size farm in the county in which the parcel is located") with a fair market value no greater than $125,000 at the time of prior ownership.

Please note that the applicant, spouse, and minor children can have interests in substantial farmland and still qualify for an IFDA loan as long as they have not materially participated in the operation of the farmland already owned.

Loan Maximums f Beginning Farmer Program

The Illinois Farm Development Act and the Tax Reform Act of 1984 impose limits on the maximum loan amounts under the Beginning Farmer Program. They are:

1. $150,000 for the purchase of Agricultural Land.

2. $250,000 for the purchase of Agricultural Land and used Depreciable Agricultural Property to be used in connection with that Agricultural Land.

V

SOIL CONSERVATION LOAN PROGRAM (SCLP)

The SCLP is intended to facilitate the implementation of permanent soil or water conservation projects and the acquisition of conservation farm equipment for Agricultural Land within the state of Illinois. Soil or water conservation projects and equipment will be funded only if they are part of a conservation plan which has been approved by the local soil or water conservation district.

SCLP Definitions

Below are definitions of key terms necessary to understanding the SCLP:

Landowner or operator means any person, firm, corporation, federal agency, the State of Illinois, or any of its political subdivisions, who shall hold title to or operate Agricultural Land within the boundaries of the State of Illinois.

Agricultural Land means land suitable for use in farming and which is or will be operated as a farm.

Permanent soil and water conservation project means the installation of tiling for drainage, planting of perennial grasses, legumes, shrubs or trees, the establishment of grassed waterways, and the construction of terraces or any other permanent soil and water conservation practice approved by the local soil or water Conservation district.

Conservation farm equipment means any type of no-till or minimum till machinery and equipment which the Soil Conservation District office in the county where the project is located will certify is soil conservation equipment on that particular farm.

Eligible Loan Activities for SCLP

Eligible loan activities consist of financing the following:

1. **Permanent soil or water conservation projects.** The IFDA will finance authorized permanent soil or water conservation projects on Agricultural Land located in the State of Illinois. The component parts of a project can also be financed, including but not limited to, tile for terraced and grassed waterways, inlets for terraces, concrete and steel for erosion control structures, etc. No used components can be financed under the SCLP program.

2. **Conservation farm equipment.** The IFDA will finance the purchase of new no-till or minimum tillage equipment that will be used for reduced tillage or no-till practices on Agricultural Land located in the State of Illinois. The Soil Conservation District office in the county where the project will be used must certify that the equipment is no-till or minimum tillage equipment on that particular farm. Examples of soil conservation equipment could be chisel plows, no-till drills, hay balers, etc.

3. **Conservation district approval.** SCLP loans for permanent soil or water conservation projects or conservation farm equipment will be made only to the owner or operator of a farm located within the State of Illinois for which a conservation plan has been developed and adopted by the local soil or water conservation district.

Applicant Eligibility for SCLP

Basic SCLP applicant eligibility requirements are as follows:

1. **Age.** Applicants who are individuals must be at least eighteen (18) years of age at the time of application. NOTE: Applicants need not be individuals; corporation, partnerships, etc. may apply.

2. **No Residency Requirement.** Applicants who are individuals need not be residents of the State of Illinois. Therefore, even though an individual landowner or operator is not an Illinois resident, he or she may use bond proceeds to construct a soil or water conservation project on land located within the State of Illinois, or to acquire conservation farm equipment that will be used on land located within the State of Illinois.

3. **Net Worth.** Preference will be given to those owners or operators of Agricultural Land who have a lower net worth.

Loan Maximums

There are no upper or lower limits on IFDA loans for permanent soil and water conservation projects or conservation farm equipment.

VI

AGRIBUSINESS LOAN PROGRAM

The Agribusiness Loan Program is designed to encourage the development of small agribusiness operations in Illinois. The IFDA hopes this program will enhance economic growth in Illinois by creating and saving jobs in the rural areas of the state. Of particular importance is the applicable definition of "Agribusiness" and the limitations on the size of the Agribusinesses which qualify for the program.

Definition of "Agribusiness"

"Agribusiness" means any sole proprietorship, limited partnership, co-partnership, joint venture, corporation or cooperative which operates or will operate a facility located within the State of Illinois that is related to the processing of agricultural commodities (including, without limitation, the products of acquaculture, hydroponics and silviculture) or the manufacturing, production of construction of agricultural buildings, structures, equipment, implements, and supplies, or any other facilities or processes used in agricultural production. Agribusiness includes but is not limited to the following:

(1) grain handling and processing, including grain storage, drying, treatment, conditioning, milling and packaging:

(2) seed and feed grain development and processing:

(3) fruit and vegetable processing, including preparation, canning and packaging:

(4) processing of livestock and livestock products, dairy products, poultry and poultry products, fish or apiarian products, including slaughter, shearing, collecting, preparation, canning and packaging:

(5) fertilizer and agricultural chemical manufacturing, processing, application and supplying:

(6) farm machinery, equipment and implement manufacturing and supplying:

(7) manufacturing and supplying of agricultural commodity processing machinery and equipment, including machinery and equipment used in slaughter, treatment, handling, collecting, preparation, canning or packaging of agricultural commodities:

(8) farm building and farm structure manufacturing construction and supplying:

(9) construction, manufacturing, implementation, supplying or servicing of irrigation, drainage and soil and water conservation devices or equipment:

(10) fuel processing and development facilities that produce fuel from agricultural commodities or by-products:

(11) facilities and equipment for processing and packaging agricultural commodities specifically for export:

(12) facilities and equipment for forestry product processing and supplying, including sawmilling operations, wood chip operations, timber harvesting operations, and manufacturing of prefabricated buildings, paper, furniture or other goods from forestry products.

Eligible Agribusiness Loan Activities

1. **Depreciable Property (Buildings, Machinery, Equipment).** IFDA Agribusiness Loans may be used to purchase new depreciable property, and, in certain limited circumstances, used depreciable property.

(a) **New depreciable property.** IFDA loan proceeds can be used to purchase or construct new depreciable property which will be used in Illinois by an eligible Agribusiness in connection with its Illinois agribusiness operations. Examples include new grain elevators or sales offices, new trucks or farm machinery (excluding inventory).

(b) **Used depreciable property.** As a general rule, IFDA loan proceeds cannot be used to purchase used property. A limited exception exists for existing buildings and the property located inside or related to such buildings at the time of purchase—but only if substantial rehabilitation expenditures are made within two years of the date the IFDA Bond is issued. For this limited exception to apply, rehabilitation expenditures must be made within the two year period in an amount equal to 15 percent of that portion of IFDA Bond proceeds used to purchase the building and the related equipment.

2. **Agricultural Land.** Agribusiness Program loans may not be used to acquire Agricultural Land. Only individuals may acquire Agricultural Land with IFDA loan proceeds. (See description of "Beginning Farmer" program.)

3. **Non-Agricultural Land.** Less than 25 percent of the proceeds of an IFDA Agribusiness loan may be used to acquire land which is *not* Agricultural Land. For example, if an Agribusiness secures an IFDA loan for $100,000 to construct a farm equipment dealership, less than $25,000 of the loan proceeds may be used to purchase the land on which the dealership will be built. If the cost of the land is $25,000 or more, the Agribusiness must use its own funds to finance the balance of the purchase price.

Applicant Eligibility for Agribusiness Loans

1. The applicant must be an Agribusiness as defined in the Act (see above).

2. The applicant, including all affiliates and subsidiaries, must either (i) have no more than 100 employees at the time of application or (ii) have had a gross income of no more than $2,000,000 for the calendar year preceding the year in which an application is submitted. "Gross income" for this purpose means the amount of gross income properly reportable for federal income tax purposes for the taxable year under the provisions of the Internal Revenue Code of 1954, as amended.

3. The IFDA may waive the requirements of "2" above for any Agribusiness which at the time of application does not operate a facility within the State of Illinois.

Loan Maximum for Agribusiness Loans

No single IFDA Agribusiness Program loan may exceed $1,000,000. No applicant may use more than $150,000 of IFDA loan proceeds to purchase real estate.

VII

TIME TABLES

The IFDA Board of Directors meets on the second Wednesday of each month. At that time the Board approves all eligible loan requests. An application for a loan must be received no later than the first Wednesday of each month (one week prior to the board meeting) to allow sufficient time for processing for the upcoming meeting.

At the following meeting after the application has been approved, the IFDA Board of Directors will approve the bond sale. A public hearing must be held prior to the sale of the bond. A public notice will be published in a newspaper of general circulation in the county where the project is located to advise the public if they wish to attend the public hearing.

Bond Documents Packages will be sent to the lending institutions shortly after the Board has approved the bond sale.

VIII

LENDER POINTS

The tax laws impose many restrictions on IFDA bonds, one of which limits the spread between the actual interest rate the applicant is paying on the Promissory Note (with all points and fees included) and the stated interest rate on the Bond.

Because of these rules, it will not be possible for the lender to charge points to the applicant. Lenders may wish to adjust the applicable interest rate accordingly.

IX

RIGHT TO AUDIT

The IFDA shall have, at any time, the right to audit records of the lender and the borrower relating to a particular bond transaction to insure the bond proceeds were used for qualified purposes by a qualified user.

X

STATE CAP IN ILLINOIS

The Tax Reform Act of 1984 imposes a limit cap on the amount of Industrial Development Bonds (IDB's) which can be issued in Illinois. Bonds issued by the IFDA will fall under this state cap. It is not anticipated that the new state cap will have any significant effect on IFDA loan programs.

XI

IFDA FEES

The IFDA charges an administrative fee on all loans to cover the administrative costs associated with the Bond and the Promissory Note through all programs. This administrative fee equals one and one-half percent of the face amount of that loan, with a minimum fee of $200. The non-refundable $200 application fee required at the time of application is credited against the one and one-half percent administrative fee due at closing.

The Illinois Farm Development is a self sufficient state authority. Its operating expenses and legal fees are all paid from the one and one-half percent administrative fee.

EXHIBIT III

ANALYSIS OF AGRICULTURAL IDB'S

There has been a total of $246,953,512.00 issued in Agricultural Industrial Development Bonds (IDB's) across the United States.

These IDB's are exempt from federal income tax. Private lending institutions purchase these bonds which creates a loss of revenue to the federal government. This loss in revenue is very minimal compared with the benefits agriculture is receiving from them.

Below is the approximate loss of revenue to the federal government which is caused by Agricultural IDB's:

$246,953,512 x 9% (approximate cost of funds for lenders) = $22,225,816.08

$246,953,512 x 14% (assuming this would have been conv. rate charged) = $34,573,491.68

(Total of profits lenders would have received) $12,347,675.60

$12,347,675.60 x 46% (assuming all banks are in a 46% tax bracket) $5,679,930.78

$5,679,930.78 would be the total annual loss of revenue which the federal government is not receiving because of Agricultural IDB's.

In 1984 the Tax Reform Act was enacted which placed many additional restrictions on Agricultural IRD's. In 1984 there were $51,189,697 issued in Agricultural IDB's.

Using the above assumed data (9% - approximate cost of funds for lenders, 14% - assuming this would have been conventional rate charged, and 46% - assuming all banks are in a 46% tax bracket) the federal government lost $1,177,363.03 of federal revenue caused by Agricultural IDB's in 1984.

The Tax Reform Act of 1984's restrictions eliminated many farmers from Agricultural IDB programs who were previously eligible. This is the main reason why so few bonds were issued in 1984.

In January and February 1985, there were $9,581,740 of Agricultural IDB's issued. Assuming that the first two months of 1985 will reflect the demand for Agricultural IDB's in 1985, a total of $57,490,440 would be issued in Agricultural IDB's. Assuming that all the data is constant

(as stated previously), Agricultural IDB's will cost the federal government an additional $1,322,280.12 in 1995.

At the current rate of demand for Agricultural IBD's, these bonds will probably cost the federal government approximately $1,325,00/year in loss of revenue.

Assuming that the sunset on Agricultural IDB's goes into effect on December 31, 1986, the total loss of revenue caused by Agricultural IDB's will be $8,109,550/year. This is presuming there is no principal reduction on previously issued bonds (there will be some principal reduction).

Main Point:

The overall loss of revenue to the federal government is very minimal when compared with the benefits Agricultural IDB's are providing to agriculture.

STATE	FROM PROGRAM INCEPTION			JANUARY - DECEMBER 1984			JANUARY - FEBRUARY 1985		
	# OF LOANS CLOSED	$ IN LOANS CLOSED	CONTACT PERSON	# OF BONDS ISSUED	TOTAL $ OF BONDS ISSUED	CONTACT PERSON	# OF BONDS ISSUED	TOTAL $ OF BONDS ISSUED	CONTACT PERSON
ALABAMA		$ 9,000,000		0	$ 0		0	$ 0	
COLORADO	125	$11,000,000	Jim Rubingh	4	$ 500,000	Jim Rubingh	5	$ 1,500,000	Jim Rubingh
ILLINOIS	1,200	$62,521,811	Brenda Leheney	187	$12,364,335	Brenda Leheney	65	$ 3,937,085	Brenda Leheney
INDIANA	71	$ 7,675,000	Greg Clark	43	$ 4,796,000	Greg Clark	4	$ 506,000	Greg Clark
IOWA	397	$31,013,480	Bill Greiner	91	$ 8,619,844	Bill Greiner	12	$ 878,360	Bill Greiner
LOUISIANA	112	$27,163,500	Frank Millican	86	$14,200,000	Frank Millican	8	$ 863,500	Frank Millican
MICHIGAN	46	$ 4,017,987	Don Schaner	26	$ 2,100,500	Don Schaner	(Not available-minimal)		Don Schaner
NEBRASKA	342	$26,436,734	Jim Rieker Morris Reynolds	96	$ 8,609,018	Jim Rieker Morris Reynolds	9	$ 896,795	Jim Rieker Morris Reynolds
NORTH DAKOTA		$19,000,000+	Jeff Weispfenning	0	$ 0	Jeff Weispfenning	2	$ 1,000,000+	Jeff Weispfenning
OKLAHOMA		$47,000,000		0	$ 0		0	$ 0	
SOUTH CAROLINA		$ 625,000		0	$ 0		0	$ 0	
VIRGINIA	18	$ 1,500,000	Jim Kee	0	$ 0	Jim Kee	0	$ 0	Jim Kee
GRAND TOTAL		$246,953,512			$51,189,697			$ 9,581,740	

EXHIBIT IV

ANALYSIS OF THE

ILLINOIS FARM DEVELOPMENT AUTHORITY'S

BEGINNING FARMER LOAN PROGRAM

MARCH 1985

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Mr. Ronald L. Bailey
Executive Director
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This report, entitled "Analysis of the Illinois Farm Development Authority's Beginning Farmer Loan Program", has been prepared pursuant to our engagement letter dated January 29, 1985.

This report contains the results of a survey of 1984 borrowers in the Beginning Farmer loan program as well as other data regarding Illinois agriculture in general. In addition, relevant data on the major banks participating in the Beginning Farm loan program are included in this report.

The report and its conclusions are based on information supplied by you and your associates, the result of the borrower survey, the results of discussion with various participating banks, and our research in and knowledge of this area.

Our report is intended for your information and for your use in your lobbying efforts. It is not intended for any other purpose.

Laventhol & Horwath

March 27, 1985

ANALYSIS OF THE
ILLINOIS FARM DEVELOPMENT AUTHORITY'S
BEGINNING FARMER LOAN PROGRAM
MARCH 1985

LETTER OF TRANSMITTAL

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SUMMARY OF FINDINGS AND CONCLUSIONS

From our research of the IFDA's Beginning Farmer loan program, we have determined several trends regarding its 1984 loan activity. Primary research in the form of a telephone survey was administered to the approximately 280 borrowers in 1984, with 212 responding. The following determinations can be made from this survey and other data collected during our research:

- 55% borrowed money for farm land; 45% borrowed money for improvements or equipment.
- The survey respondents purchased approximately 9,200 acres of farmland and approximately $4,000,000 of improvements and equipment.
- This IFDA loan was the first farm loan for 43% of all respondents.
- 33% attempted to obtain financing before they tried for an IFDA loan. Of these people, 75% felt the terms offered for non-IFDA loans were prohibitively high, while 15% were refused a loan.

- 44% of the respondents said they would not have been able to make their purchase of land or equipment without the IFDA loan.
- 21% said that the IFDA loan was their only opportunity to enter into farming.
- 28% had no prior relationship with a bank loan officer.
- 62% of the respondents were under 30 years of age as compared with the average age of approximately 49 for all farmers in Illinois.
- Approximately 76% of the respondents had a net worth of less than $175,000 as compared with the statewide average of over $500,000 per farmer.
- Compared with market rates for farm loans in 1984, it was determined that IFDA loans represented a significant savings for the participating borrowers.
- Based on an investigation of the major banks participating in the Beginning Farmer loan program, most were already at a low effective tax rate, thereby decreasing the potential benefits of the tax-free interest income from the IFDA loans.

INTRODUCTION

General

Laventhol & Horwath was engaged by the Illinois Farm Development Authority (IFDA) to analyze its Beginning Farmer loan program, specifically the loan activity which occurred in 1984. This study was commissioned to determine what the benefits have been to the participating farmers and banks and, in general, to Illinois agriculture.

The IFDA was given legislative authority in 1981 to increase the availability of loans for the purchase of agricultural land, agricultural improvements, and depreciable personal property to be used for agricultural purposes in Illinois. The IFDA has three loan programs: the Beginning Farmer loan program, the Soil

Conservation loan program, and the Agribusiness loan program. All three use tax-exempt financing, but this report focuses on only one program, the Beginning Farmer loan program. The aim of this program is to help farmers of low net worth get started and established in farming.

The focus of this study is on the IFDA's Beginning Farmer loan program since it is the most dominant of the three programs. In 1984, the Beginning Farmer loan program represented almost 80% of the IFDA's loan activity.

Under the Beginning Farmer loan program, the farmer applies to a bank for a farm loan. The private lender first makes its own loan analysis and then sets the interest rate and payment schedule for the loan. Next, the IFDA issues a tax-exempt bond having the same face amount and terms of the proposed loan. The private lender purchases the bond, and the bond proceeds are lent to the Beginning Farmer. Because the interest on this loan is exempt from federal income taxes, the interest rate is below standard market interest rates. It should be noted that the loan and the bond are not obligations of the IFDA or the State of Illinois, but are secured solely by the loan and the collateral required by the private lender.

The passage of the Tax Reform Act of 1984 tightened the issuing restrictions on tax-exempt bonds, thereby decreasing qualified borrowers. Therefore, IFDA lending activity in the years prior to 1984 were not considered comparable since there tended to be more overall loan activity.

Background of the Study

The general economic conditions of the U.S. farm economy have been worsening for the last several years. During most of the 1970s, inflation was high, interest rates were lower, and the prices of agricultural commodities were increasing. Additionally, the price of farmland, the farmer's main collateral, was also increasing. This economic environment encouraged many farmers to borrow more money to expand their operations. In the early 1980s, inflation began to fall, interest rates rose, and crop prices and farm land values plunged. Furthermore, the Soviet grain embargo, bad crop years and, more recently, the strong U.S. dollar overseas have all changed the farmers' situation to one of financial uncertainty. Farmers' income has dropped, causing problems for many in meeting interest payments on loans. Farmer's loans are less secure than in years past because of the drop in the value of farmland, and hence collateral.

In Illinois, farmers' total net income went from nearly $1 billion in 1982 to a loss of $584 million in 1983. Data for 1984 and 1985 are not available, but most experts believe that this trend is likely to continue.

The downward trend in value of Illinois farmland began in 1981. According to the Federal Reserve Bank of Chicago, farmland had declined 29% in value between 1981 and 1984, 15% from 1983 to 1984 alone.

The financial situation of the overall U.S. farm economy, and specifically the Illinois farm economy, is at a crucial period. Currently, the U.S. Congress is debating a national farm bill that will be in effect for the next five years. With the very existence of many of the current government farm programs in jeopardy, other sources of funds are going to have to be investigated. The Illinois Farm Development Authority's loan activities are based on legislation that expires at the end of 1986. The IFDA would like this deadline to be extended until the end of 1988, when legislation for tax-exempt manufacturing uses expire. The following analysis looks at the IFDA's Beginning Farmer loan program during 1984 to evaluate its activities in relation to its established mission of helping young farmers.

Methodology

To accomplish this analysis, several tasks were completed. We first conducted primary research in the form of a survey administered to 1984 recipients of IFDA loans in the Beginning Farmer loan program. While the IFDA possessed some of the data regarding the borrower profiles, a more in-depth look at borrower attitudes and motives was desired from this survey. In addition, we researched various aspects of Illinois agricultural data to assess the IFDA's activities within this larger realm. Finally, we interviewed the major private lending institutions who participated in the IFDA program in order to attempt to assess the relationship between the banks and the borrowing farmers.

THE IFDA IN THE CONTEXT OF ILLINOIS AGRICULTURE

Agriculture is a dominant force in the Illinois economy. Farmland covers nearly 80% of the state's entire land area. Almost 30% of Illinois' work force is employed in agriculture or food-related industries. Shown below are some of the production figures for various commodity groups and the relative position of Illinois in relationship to other states:

CASH RECEIPTS FROM FARM MARKETINGS - 1983

Commodity	Illinois rank among states
Crops	2
Livestock	8
Total	4

PRODUCTION OF MAJOR CROPS AND LIVESTOCK - 1983

Commodity	Illinois rank among states
Soybeans	2
Corn	2
Oats	11
Feed cattle marketed	7
Pigs	2

AGRICULTURE EXPORT SHARES - 1983

Commodity	Illinois rank among states
Feed grains and products	1
Soybeans and products	1
Live animals and meat	6
All commodities	1

Source: Agriculture Yearbook - 1984, Illinois Department of Agriculture.

In Illinois as in the nation as a whole, the farm population is decreasing both in terms of actual number and percentage as shown below:

	United States			Illinois		
	Total	Farm population		Total	Farm population	
Year	population	Number (000's)	Percentage	population	Number (000's)	Percentage
1950	151,326	23,048	15.2%	8,712	763	8.8%
1960	179,323	15,635	8.7	10,081	621	6.2
1970	203,302	9,712	4.8	11,110	473	4.3
1980	226,504	5,543	2.4%	11,418	375	3.3%

Sources: U.S. Department of Agriculture.
U.S. Department of Commerce, Bureau of the Census.

As farmland was continually made more productive through advancements in agronomy and the other sciences, fewer people were needed to work on farms, and less farmland was needed for food production. In addition, falling farm profitability and the increasing employment opportunities for farmers away from the farm have contributed to a declining farm population. In Illinois, as the chart below shows, the number of farms has fallen faster than the amount of land in farms. The result has been increases in the average size of farms in Illinois.

	1969	1974	1978	1982	Compound annual percentage change 1969-1982
Number of farms	123,565	111,049	104,690	98,483	(2.2%)
Land in farms	29,913,190	29,094,794	29,472,473	28,726,114	(.3%)
Average size of farm (acres)	242	262	282	292	1.5%

Source: U.S. Department of Commerce, Bureau of the Census.

In order to qualify for an IFDA real estate loan, prospective borrowers can initially own no more than 15% of the median sized farm in their county (prior to borrowing). Therefore, even if an IFDA borrower owns any land prior to making this purchase, it is typically a very small amount. For example, in Effingham County the median size farm is 147 acres. Fifteen percent of this is 22 acres. From the survey data, the average number of acres purchased with

an IFDA loan was approximately 80 acres. In this example, the total acreage owned by this farmer in Effingham County would now be 102 acres, still significantly below the state average of almost 300 acres per farmer.

The average age of the farm operator in Illinois has changed little over the past several years. The chart below shows this information:

	1974	1978	1982	Compound annual percengage decrease 1974-1982
Average age (in years)	50.9	49.2	49.2	(.4%)

Source: U.S. Department of Commerce, Bureau of the Census. Data for 1984 was unavailable.

According to data provided by the IFDA, the average age of all IFDA loan recipients in 1984 was approximately 28 years. This figure is well below the state average. Thus, the IFDA Beginning Farmer loan program is achieving its objective of helping younger farmers.

Based on the survey respondents, the IFDA helped to purchase approximately 9,200 acres in 1984. To place this into context, farmland transactions data for Illinois are shown below:

	1975	1976	1977	1978	1979	1980
Number of farmland sales	3,654	3,742	4,262	4,019	3,742	2,959
Total acres of farmland sold	254,959	271,037	248,480	289,823	230,861	195,126

	1981	1982	Average 1975-1982	Average 1978-1982
Number of farmland sales	1,935	1,650	3,245	2,861
Total acres of farmland sold	129,686	103,876	215,481	189,874

Sources: Regional Farmland Price Changes in Illinois, 1975 through 1980 (January 1983).
Regional Farmland Price Changes in Illinois, 1975 through 1982 (Draft).

The data for 1983 and 1984 are not currently available. Some experts have estimated that although land values have continued to slide downward after 1982 because of lower crop values (among other reasons), there may be an increase in the number of sales because of the increasing number of forced sales through bankruptcy. If the 1978-1982 average figure of acres sold is used as an estimate for 1984, then land purchased through the IFDA in 1984 represented an estimated 4.8% of all farmland transacted in the state (9,200 divided by 189,874).

Approximately 32% of the survey respondents borrowed money for new farm equipment and/or machinery. The average purchase price was about $44,000. For the entire state in 1982, the average estimated market value of all machinery and equipment per farm was $61,982. It could be implied that for those borrowing through the IFDA for equipment, the IFDA helped to purchase over two-thirds of the equipment that is found on an average Illinois farm.

The purchase of new farm equipment has been on the decline for several years, however, both nationally and in the state as a whole. Presented below are retail sales of farm machinery and equipment, by number of units:

Type of equipment	1979		1983		1984		Compound annual percentage decrease 1979-1984	
	Illinois	U.S.	Illinois	U.S.	Illinois	U.S.	Illinois	U.S.
Farm wheel tractors	7,651	138,990	5,091	116,937	4,270	117,734	(11.0%)	(3.3%)
Combines	3,305	32,246	1,417	12,751	1,424	11,422	(15.5)	(18.7)
Balers	399	18,750	217	9,037	236	8,314	(10.0)	(15.0)
Forage harvesters	365	12,451	116	4,091	103	3,538	(22.4)	(22.2)
Mower conditioners	773	25,600	455	14,261	417	13,057	(11.6)	(12.6)
Windrowers	15	8,615	12	3,047	6	2,591	(16.7)	(21.4)
Grinder/ mixer	679	11,673	281	4,018	140	2,349	(27.1)	(27.4)
Corn heads	3,533	22,374	1,342	6,830	1,297	6,419	(18.2%)	(22.1%)

Source: Farm and Industrial Equipment Institute.

As can be seen, the state has exhibited declines in every major equipment category over the last five years. The overall poor farm economy during the last few years has probably contributed to this trend. There are no readily available data that indicate the dollar amount of farm equipment purchased in Illinois. However, because farm equipment of more than $1,000 is completely exempt from state sales tax (only since January 1983), the dollar amount of farm equipment purchased can be estimated from the Illinois Department of Revenue's Loss Reporting System. Using these data for the 12-month period of July 1983 through June 1984, it is estimated that there was approximately $400,000,000 of farm equipment purchased in Illinois. Based on the survey respondents, approximately $2.7 million of equipment was purchased with IFDA loans. This is less than 1% of all farm equipment purchased in the state.

Essentially all of the farmland purchased with IFDA loans was already being farmed before the purchase. Thus, there is probably no incremental increase in overall agricultural production in the state resulting directly from the IFDA loan program unless that farmland otherwise would have been sold off for other uses, or would have lain fallow. It is still reasonable, however, to calculate the likely economic effect of the yield from the acreage purchased through this program. The land purchased is in various parts of the state with differing soil quality and therefore

varying yield capability. In addition, the type of crops that will be planted on this acreage is also unknown. To build a hypothetical case, we have assumed that all of the acreage purchased will be planted with soybeans or corn, the two most dominant crops in Illinois. By using the statewide average yield per acre for each crop, as well as the statewide average price per bushel, the estimated value of production from this land can be calculated as follows:

9,200 acres total

4,324	Acres in corn	4,876	Acres in soybeans
x 79	Bushels per acre	x 29.5	Bushels per acre
341,596		143,842	
$ 3.30	1983* seasonal average price per bushel	$ 8.10	1983* seasonal average price per bushel
$1,127,267		$1,165,120	

*Source: Illinois Agricultural Statistics, 1984. (Seasonal average prices for 1984 were not available.)

Under this scenario, total crop value would be $2,292,387. In order to trace the multiplier effect of this output through the entire economy, data from the United States Input-Output (I/O) tables can be utilized. From the most recent tables based on 1977 regional economic data published by the Department of Commerce, for every $1.00 of final sales in the category "Other Agricultural Products" (which is where crop production would be placed), a total of $1.95 in total final sales from all sectors of the economy would result.

To continue with the above example, $2,292,000 in crop sales could mean almost $4.5 million in total production from the entire economy. This multiplier effect would only hold true if one assumes that the farmland purchased through the IFDA would have otherwise been taken out of farm production. In addition, there would be multiplier effects to the economy with regard to the purchase of the new equipment purchased with IFDA loans.

Savings in interest expense is important to beginning farmers since this can lower cash flow requirements of their farm operation. For all farmers in Illinois, the item of interest expense as a percentage of all cash uses has risen significantly between 1980 and 1983, as follows:

	1980	1981	1982	1983
Interest expense as a percentage of all cash uses (for all Illinois farms)	14.8%	17.1%	18.8%	20.4%

Source: Economic Indicators of the Farm Sector, State Income and Balance Sheet Statistics, 1983, U.S. Department of Agriculture.

This increasing percentage of interest expense probably results from the increasing cost of funds to and increased borrowings of farmers. Moreover, the amount of debt that Illinois farmers have taken on, along with the decreasing value of their major assets (farmland), have contributed to higher debt/asset ratios. Shown below are two ratios of farm balance sheet indicators for both Illinois and U.S. farmers:

	1980		1981		1982		1983		1984	
Ratio	Illinois	U.S.	Illinois	U.S.	Illinois	U.S.	Illinois	U.S.	Illinois	U.S.
Debt/ equity	14.3	N/A	15.1	N/A	18.6	N/A	22.5	N/A	22.3	N/A
Debt/ assets	12.5	17.0	13.1	17.2	15.6	19.2	18.4	21.5	18.3	21.6

Source: Economic Indicators of the Farm Sector, Income and Balance Sheet Statistics, 1983, U.S. Department of Agriculture.

Because the IFDA's Beginning Farm loan program is addressing the cost of farm borrowing, it is attempting to solve one of the more important problems a farmer, especially a young farmer, currently must face.

FARMER SURVEY

Summary of Survey Results

A telephone survey of participants in the Beginning Farmer loan program was conducted. Of the approximately 280 program participants (borrowers) in 1984, 212 farmers (approximately 76%) responded to the telephone survey. The questionnaire and tabulated results of this survey are included in the Appendices of this report.

It was determined that the participants in the IFDA loan program borrowed for the following uses:

Use	Percentage of respondents
Land	55%
New equipment	32
New improvements	11
Used equipment*	2
	100%

* Purchased in conjunction with land.

Regarding land purchased, the respondents purchased a total of approximately 9,200 acres of farmland, or about 80 acres each. The average expenditure for a land purchase was $130,000. In only one case was the farmland purchased not being actively farmed prior to the sale.

The average price of new equipment purchased was approximately $44,000, with a total of approximately $2,700,000 purchased through the IFDA in 1984.

Additionally, it was found that IFDA loans helped the respondents purchase just over $1,000,000 of new improvements and approximately $250,000 in used equipment.

Our survey investigated IFDA's charge of helping younger, low net worth farmers. The results of our investigation indicated that approximately 76% of the respondents have a net worth less than $175,000, compared with an average net worth of over $500,000 for all Illinois farmers in 1984. Over 62% of the respondents are under 30 years of age.

Moreover, this IFDA loan represented the first farm loan for 43% of all respondents. Thirty-three percent of all respondents did attempt to obtain financing from another source other than the IFDA. The type of institutions, for those who attempted other financing, are presented below:

Source	Percentage of respondents *
Commercial bank	61%
Federal Land Bank	35
Farmers Home Administration	13
Other	10
Don't know	1%

* In some cases multiple responses were given.

For those one-third of the respondents who did attempt to first obtain financing from another source beside the IFDA, their reasons for not getting a loan are listed below:

Reason	Percentage of respondents
Too expensive/terms too high	75%
Was turned down/refused	15
Other	7
Don't know	2
No answer	1
	100%

The majority of respondents (67%) who did not try another source for a loan gave the following reasons:

Reason	Percentage of respondents*
Loan would have been too costly	71%
Bank recommended the IFDA loan	11
Not familiar with any other loan source	7
Didn't think I would qualify	4
Recommended by others	4
Other	5
Don't know	3

* In some cases multiple responses were given.

It is evident that the main concern of the IFDA borrower (both those who did and did not attempt other financing alternatives) was the cost of the loan. The major attraction of the IFDA loan is the lower interest rate, and in fact, 93% of all respondents said the main reason for borrowing with the IFDA was the lower interest rate. Shown below are all of the major reasons why the respondents chose an IFDA loans:

Reason	Percentage of respondents
Lower interest rate	93%
Long-term loan	1
Lower collateral requirements	1
Advice of banker	1
Fixed rated	1
Other	2
Don't know	1
	100%

Respondents were asked whether they would have been able to make their purchase for land or equipment if they had not received the IFDA loan. The following responses were given:

Response	Percentage of respondents
Yes	49%
No	44
Don't know	7
	100%

When respondents were asked another question regarding the importance of getting the IFDA loan, the responses were as follows:

The IFDA loan was	Percentage of respondents
Necessary for the continuing operation of your farm	19%
Necessary only for expansion purposes	60
Your only opportunity to enter into farming	21
	100%

Of the respondents analyzed, 86% said their farm operation was currently in a positive cash flow situation and 84% said their principal income was from their farm operation.

Prior to their involvement with the IFDA loan program, 28% of the respondents said they did not have any relationship with a bank loan officer. Thus, an additional yet unquantifiable benefit of the program may be that young farmers are now developing a bank relationship that may be useful in the future.

In addition to being predominantly young and of low net worth, the respondents could also be described by the following:

Characteristic	Percentage of respondents
Had some college	45%
Actively engaged in farming prior to receiving IFDA loan	95%
Parents had been actively involved in farming	95%

Conclusions

The IFDA Beginning Farmer loan program is clearly targeted to those individuals it was originally established to help: younger farmers of low net worth. The main advantage and benefit of this program to the farmers is the lower interest rate on the loan. The lower rate reduces the annual loan payment and thus helps ease their cash flow situation.

The majority of respondents were at the early stages of their farming career and this IFDA loan seemed instrumental in their particular financial situation. Forty percent of all respondents said their IFDA loan was either necessary for the continuing operation of their farm or the only opportunity by which they could enter farming. Analyzing the cross-tabulated results of the survey also leads one to the same conclusion. Of the 101 respondents who said they did not attempt to get a farm loan from another source (other than the IFDA) because it would have been too costly, 48 were taking out their first farm loan.

The IFDA program, in 1984, was loaning money to those who felt they could not afford market rates for farm loans. However, the majority of these farmers were not unwilling to commit themselves to farming, since 84% of all respondents said their principal income was from farming and that 86% had a farm operation that was in a positive cash flow situation.

The actual dollar benefits to the participants in the form of lower interest rates is discussed in the next section of this report. The survey has pointed out other potential benefits, both to the participants and the Illinois agricultural sector. These benefits are relatively unquantifiable yet still important. Twenty-eight percent of all respondents had no prior relationship with a bank loan officer. Additionally, while the survey results show that the majority of respondents had been in farming immediately prior to receiving their loan, 21% were now able to go into their own farming operation. Giving people this opportunity to enter into farming is another major goal of the IFDA loan program. Alternatively, in all but one of the IFDA-sponsored land purchases in 1984, the land was already in an agricultural use. This results in no incremental increase in the agricultural production of the state as a whole unless it can be assumed that the previous owners of the land would have taken the land out of farming.

DIRECT BENEFITS TO PARTICIPATING FARMERS AND BANKS

Benefits to Farmers

The major benefit of the IFDA loan program is the interest savings to the farmer and the tax-free interest income to the participating banks. Listed below is a summary of 1984 loan activity in the IFDA's Beginning Farmer loan program:

Real estate	$17,138,453
Machinery, equipment and farm improvements	4,393,506
	$21,531,959

Source: Illinois Farm Development Authority.

In order to assess the potential savings from the lower interest rate on these farm loans, it is relevant to look at the average rates and terms offered on market-rate farm loans during 1984. These data then have to be compared with the interest rates

and terms offered with IFDA loans. To obtain this information, the top banks participating in the Beginning Farmer loan program in 1984 were interviewed. These banks were the major participants in the program in terms of either number of loans made or dollars loans. Listed below are these banks:

BY NUMBER OF LOANS MADE

Number of loans		Dollar volume
15	Citizens 1st National Bank - Princeton	$ 430,600
13	Peoples State Bank - Manito	1,025,400
11	1st National Bank - Waterloo	1,322,800
10	1st Trust & Savings Bank of Watseka	398,506
7	National Bank of Monticello	356,250
6	McLean County Bank - Bloomington	459,400
6	Farmers State Bank - Hoffman	335,900

BY LOAN VOLUME

Number of loans		
11	First National Bank - Waterloo	1,322,800
13	Peoples State Bank - Manito	1,025,400
4	DeKalb Bank	515,600
6	McLean County Bank - Bloomington	459,400
15	Citizens 1st National Bank - Princeton	430,600
4	Union National Bank - Streator	400,500
10	1st Trust & Savings - Watseka	$ 398,506

Source: Illinois Farm Development Authority.

DeKalb Bank was not contacted because it was recently taken over by a larger bank holding company. The eight banks contacted represent approximately $4.7 million in loans, or about 22% of all of the Beginning Farmer loans made in 1984. There were approximately 230 other banks making the remaining 78% of these loans.

Listed below is a summary of these banks, denoting the rates and terms for both IFDA and non-IFDA loans:

SUMMARY - BANKS PARTICIPATING IN BEGINNING FARMER LOAN PROGRAM

Bank	Non-IFDA terms and rates		IFDA terms and rates		Effective tax rates *		
	Real estate	Machinery	Real estate	Machinery	1984	1983	1982
McLean County	13.5%, fixed 3-year balloon 2 pts. 20-year amort.	14%, var. 3-4 yr. note No pts./fees	11%, fixed 20-year amort. 10-yr. balloon	10%, fixed 5-yr. note	(1.3%)	(3.2%)	5.7%
First National - Waterloo	13%-14%, fixed 2-yr. balloon 1 pt. to close	13%-14% 1-year note No pts./fees	8.75%-9% 3-year balloon 20-yr. amort.	No loans made	25%	30.4%	N/A
Union National - Streator	12.5%-13%, var. 20-year note 1 pt. to close	14.5%, var. 5-year note No pts./fees	10-%-10.4%, var. 20-year note	No loans made	10%**	1.4%	No taxes paid but actual rate not available
Citizens - Princeton	13.5%-14%, fixed for 5 years 40-50 yr. amort. 1 pt. to close	14.5%-15% 5-year note No pts./fees	54% of base rate + 3% (10.29%- 10.56%) 10-year balloon 40-50 yr. amort.	Same as R.E. 5-yr. note	(6.4%)	(16.2%)	(81.7%)
First Trust - Watseka	13 1/4%- 13 1/2%, var. after 3 yrs. 20-year amort. No pts./fees	12% 2-year note (or 12.75% var. or 13.5% fixed for 5 years) No pts./fees	10%, fixed 10-year note 20-year amort.	9.75%, fixed 5-year note	(15%)	(35%)	No taxes paid but actual rate not available
National Bank - Monticello	No loans made	12.5%-14.5%, var. 1-5-year note No pts./fees	70% of base rate (8.75%- 10.15%) var. 30-year note	10%, fixed 3-5-year note	12.8%	7.1%	0%
Peoples State - Manito	No loans made	13.5%-14.5% 7-year note No pts./fees	70% of base rate (9.45% 10.15%), var. 20-year note	Same as R.E. 7-year note	0%	9.6%	23.5%
Farmer's State - Hoffman	13.5%-14.5%, var. after year 3 20-year note No pts./fees	14%-15% 3-year note No pts./fees	9%-10%, var. after year 5 20-year note	Same as R.E. 5-year note	12%	10%	25%

* This is computed by taking actual taxes paid divided by net income before taxes.
** Estimated by the bank because their 1984 financial statements were not finalized.

Based on the above information from these banks, differences in "average" rates and terms for IFDA and non-IFDA loans can be discerned. In general, non-IFDA loans for real estate were variable rate or were a fixed rate for only the first few years of the term. Rates were typically in the 13%-14% range. Terms ranged from two to 20 years but most were amortized over a 20-year period. Two of the banks required no closing points while those that did required one or two points. Machinery and equipment loans tended to be five-year notes or less with rates in the 14%-15% range. No bank had closing points.

Rates and terms on IFDA loans made by these same bank are also noted. For real estate, most loans were at least ten-year notes; terms ranged from three to 30 years. Twenty-year amortizations were typical, with interest rates predominately in the 9%-10% range. Only three of the eight banks had fixed rates for the entire term of the loan. IFDA machinery loans were typically five-year notes with 9%-10% fixed interest rates. All IFDA loans required one and one-half points to close. To estimate the benefits to the farmers, likely loan terms for a non-IFDA and IFDA loan have to be established. For analysis purposes, both types of loans were assumed to carry a fixed interest rate for the term of the loan. Shown below are these estimated terms:

	Non-IFDA		IFDA	
Rates and terms	Real estate	Machinery	Real estate	Machinery
Amortization	20 years	3 years	20 years	5 years
Term	3 years	3 years	10 years	5 years
Interest rate	13%	14%	9%	10%
Closing costs	1 point	No points	1 1/2 points	1 1/2 points

To calculate the savings to the participating farmers, the total interest is calculated for real estate and equipment loans based on like terms (20-year amortization for land, five-year for equipment), except for the variation in interest rates between the IFDA and non-IFDA loans:

Real estate loans made in 1984: $17,138,453

	IFDA	Non-IFDA
Total interest costs:	$20,410,687	$31,656,021
Total closing costs:	$ 257,077	$ 171,385

Machinery and equipment loans made in 1984: $4,393,506

	IFDA	Non-IFDA
Total interest costs:	$ 1,401,474	$ 2,005,274
Total closing costs:	$ 65,903	$ -0-

Assuming the only varying terms are the interest rate and closing points as computed above, estimated savings (or benefits) to the farmers borrowing IFDA loans in 1984 would be over $11 million over the life of the loan.

The lower amount of interest that these young farmers have to pay helps to ease their cash flow situation. With more favorable loan terms (a lower interest rate) given to the borrower, several of the participating banks were then willing to demand less than the standard 20%-25% equity or additional collateral or guarantees since the borrower was in a much more favorable cash position. The banks, therefore, felt the payback of these loans was more assured.

Approximately 1,500 farmers from across the state responded to a survey compiled by the Illinois Department of Agriculture in 1984 regarding farm credit. While almost half of the respondents had no debt against either their land or machinery, of those that did, 7% were either delinquent on principal or interest on their real estate loans and 9% were delinquent on either principal or interest on their machinery and equipment loans. Moreover, the respondents were not predominately younger farmers since the survey determined that 61% had been farming over 21 years.

The initial costs for those just entering into farming are large and require a major dollar commitment up front. The IFDA loan program provides some of the necessary capital at a lower cost to this segment of the farming population. The lower interest cost may be one reason none of these IFDA borrowers have defaulted or have been delinquent on their IFDA loan. In addition, 86% are in a positive cash flow position (again, possibly attributable to the lower interest rates).

Impact on the Banks

The question is sometimes raised as to whether the tax-free nature of the interest paid on IFDA loans to the banks results in an effective yield higher than that of comparable taxable loans. This would occur if the participating banks were consistently highly profitable and therefore paid taxes at the highest marginal corporate rate (46%). There are many reasons, however, as to why a bank may not pay taxes at the 46% level - net operating losses and loan charge-

offs (not unusual in the current farm economy), investment tax credits, other tax-exempt obligations (municipal bonds), etc.

Our study of the eight most active banks involved in this program showed that for the years 1982-1984, the banks were not in high tax brackets, thereby actually reducing the benefit to them of the tax-free interest from the IFDA loans. The banks, for example, had effective tax rates ranging from -81.7% to 30.4%. However, we found that these low rates were not significantly a result of the tax-free IFDA program.

As shown below, at most of the banks the IFDA loans comprised only a small portion of the bank's overall tax-exempt portfolio. Moreover, the data below also shows that as a percentage of total loan portfolio, total tax-exempt obligations were significant. Thus, other tax-exempt obligations appear to contribute more to low effective tax rates of the banks, than do the IFDA loans.

Bank	1984 Beginning Farmer IFDA loans as a percentage of tax-exempt obligations	All tax-exempt obligations as a percentage of total loan portfolio
McLean County	23.0%	3.0%
First National - Waterloo	22.6	21.0
Union National - Streator	N/A	N/A
Citizen's - Princeton	7.8	23.3
First Trust - Watseka	4.2	27.4
National - Monticello	4.0	21.2
People's - Manito	47.8	18.0
Farmer's - Hoffman	7.5%	24.0%

N/A - Not available.

Source: Laventhol & Horwath.

Also, given the current situation in the farm economy, loan write-offs may not have been uncommon at these banks, further reducing the tax rate.

It is difficult to quantify the exact impact the IFDA loans have on the participating banks. However, the majority of the most active banks in this program have low effective tax rates, thus reducing the benefits they receive from this income.

Several representatives of the banks mentioned that even though they did not need the tax-free income last year, they were committed to the IFDA program and wanted to continue lending money to the local farm community. Another banker mentioned that his bank maintains a fairly constant percentage of tax-free holdings versus those holdings that are taxable. Whether or not his bank participates in the IFDA program would not change the bank's percentage of nontaxable holdings.

APPENDIX A - QUESTIONNAIRE

(TYPED 03-12-85)

RESPONDENT NAME_____ RESP NO._____ (01-03)

ADDRESS_____ EDITOR_____ (04-07)

CITY/STATE_____ INTERVIEWER_____

ZIP_____ DATE_____

PHONE NO._____ RESULT_____

ILLINOIS FARM DEVELOPMENT AUTHORITY - 05322

(ASK TO SPEAK WITH NAME ON LIST)
Hello, my name is_____. I'm calling on behalf of the Illinois Farm Development Authority. We're conducting a study with people who received loans during 1984 as part of the Illinois Farm Development Authority's Beginning Farmer Program. The purpose of this study is to get this program extended past 1986. Your answers will be completely anonymous and in no way will your name be associated with your responses. The study will take less than 10 minutes. Throughout the questions I will refer to the authority as the IFDA. If you don't have any questions, we will begin.

(IF Q. 1 INFO IS ON SAMPLE - RECORD IT AND FOLLOW SKIPS)
1. What type of loan did you get through the IFDA? Was it for... (READ LIST - MULTIPLES OKAY)

	Land.....1	(08)
	New equipment.....2	
	New improvement....3	
	Used equipment.....4	
(DON'T READ)	DK.....X (SKIP TO Q. 9)	
(DON'T READ)	Ref.....R (SKIP TO Q. 9)	

IF "LAND" IN Q. 1 ASK Q'S 2A-5 - OTHERWISE SKIP TO Q. 6

(IF Q. 2A INFO IS ON SAMPLE - RECORD IT THEN SKIP TO Q. 2B)
2A. How much land (in acres) did you purchase? (WRITE IN ACTUAL NUMBER, IF DK OR REF, READ RANGES)

(Write in)_____acres	(09-11)
DK.....XXX (READ RANGES)	
Ref.....RRR (READ RANGES)	

1 - 30 acres.....1	(12)
31 - 60 acres.....2	
61 - 90 acres.....3	
91 -120 acres.....4	
121 -150 acres.....5	
151 + acres.....6	
DK.....X	
Ref.....R	

2B. Is this your first purchase of farm land?

Yes.....1	(13)
No.....2	
Ref. .....R	

3. What was the total purchase price of the land? (WRITE IN ACTUAL NUMBER, IF DK OR REF, READ RANGES)

(Write in) $_____ (14-18)
DK.....XXXXX (READ RANGES)
Ref.....RRRRR (READ RANGES)

$25,000 or less.....1 (19)
$25,001-$50,000.....2
$50,001-$75,000.....3
$75,001-$100,000.....4
$100,001-$125,000.....5
$125,001-$150,000.....6
$150,001-$175,000.....7
$175,001-$200,000.....8
$200,001 + ...9
Don't Know.....X
Refused.....R

4. Prior to your purchase, was this land actively being used in farming?

Yes.....1 (20)
No.....2
DK.....X
Refused.....R

5. What do you plan to use this land for....(READ LIST)

Planting of crops
(Oats/Barley/Corn/Soybean, etc.).....1 (21)
or, Raising of livestock.....2
Other (SPECIFY)

(DON'T READ) _____
(DON'T READ) DK.....X (22)
(DON'T READ) Ref.....R

IF "NEW EQUIPMENT" IN Q. 1 ASK Q. 6 - OTHERWISE SKIP TO Q. 7

6. What was the total purchase price of the new equipment? (WRITE IN ACTUAL NUMBER, IF DK OR REF, READ RANGES)

(Write in) $_____ (23-27)
DK.....XXXXX (READ RANGES)
Ref.....RRRRR (READ RANGES)

$25,000 or less.....1 (28)
$25,001-$50,000.....2
$50,001-$75,000.....3
$75,001-$100,000.....4
$100,001-$125,000.....5
$125,001-$150,000.....6
$150,001-$175,000.....7
$175,001-$200,000.....8
$200,001 + ...9
Don't Know.....X
Refused.....R

IF "NEW IMPROVEMENTS" IN Q. 1 ASK Q. 7 - OTHERWISE SKIP TO Q. 8

7. What was the total purchase price of all new improvements for which you received IFDA loans? (WRITE IN ACTUAL NUMBER, IF DK OR REF, READ RANGES) (29-33)

(Write in) $ _____
DK.....XXXXX (READ RANGES)
Ref.....RRRRR (READ RANGES)

(34)
$25,000 or less.....1
$25,001-$50,000.....2
$50,001-$75,000.....3
$75,001-$100,000.....4
$100,001-$125,000.....5
$125,001-$150,000.....6
$150,001-$175,000.....7
$175,001-$200,000.....8
$200,001 + ...9
Don't Know.....X
Refused.....R

IF "USED EQUIPMENT" IN Q. 1 ASK Q. 8 - OTHERWISE SKIP TO Q. 9

8. What was the total purchase price of the used equipment? (WRITE IN THE ACTUAL NUMBER, IF DK OR REF, READ RANGES)

(35-39)
(Write in) $ _____
DK.....XXXXX (READ RANGES)
Ref.....RRRRR (READ RANGES)

(40)
$25,000 or less.....1
$25,001-$50,000.....2
$50,001-$75,000.....3
$75,001-$100,000.....4
$100,001-$125,000.....5
$125,001-$150,000.....6
$150,001-$175,000.....7
$175,001-$200,000.....8
$200,001 + ...9
Don't Know.....X
Refused.....R

(ASK OF EVERYONE)
9. Prior to receiving your IFDA-sponsored loan, did you attempt to obtain financing from another source?

(41)
Yes.....1
No.....2 (SKIP TO Q. 14)
DK.....X (SKIP TO Q. 14)
Ref.....R (SKIP TO Q. 14)

10. What alternative source(s) did you try? (DO NOT READ LIST - IF NAME OF FINANCIAL INSTITUTION GIVEN, PROBE FOR TYPE - MULTIPLES OKAY)

(42)
Commercial bank.....1
Credit union.....2
Savings & loan.....3
Farmer's Home Administration.....4
Federal Land Bank.....5
Production Credit Association.....6
Relatives.....7
Friends.....8
Other (SPECIFY).....9

_____

(43)
DK.....X
Ref.....R

11. Why did you not get a loan from this source/these sources? (DO NOT READ LIST - MULTIPLES OKAY)

Too expensive/terms too high	1	(SKIP TO Q. 13)	(44)
Was turned down/was refused	2	(ASK Q. 12)	
Other (SPECIFY)	3		
_____		(SKIP TO Q. 13)	
DK	X	(SKIP TO Q. 13)	(45)
Refused to answer	R	(SKIP TO Q. 13)	

12. What were the reasons given for being refused a loan? (DO NOT READ LIST - MULTIPLES OKAY)

Insufficient collateral	1	(46)
Lack of farming experience	2	
Delinquent on current loans	3	
Other (SPECIFY)	4	
_____		
No reason given	0	
DK	X	(47)
Ref	R	

13. If you had financed your purchase through one of these alternative sources, what were the terms and rates you would have been offered? (IF NECESSARY - "What was the length of the loan and what was the interest rate?)

(Write in) _____ years		(48-49)
DK	XX	
Ref	RR	
_____ % interest		(50-51)
DK	XX	
Ref	RR	

IF Q. 13 WAS ASKED SKIP TO Q. 15

14. Why did you not attempt to get a loan from another source? (DON'T READ LIST - MULTIPLES OKAY)

Didn't think I would qualify	1	(52)
Loan would have been too costly	2	
Was not familiar with any other sources of loans	3	
Didn't want to approach relatives/friends	4	
Other (SPECIFY)	5	
_____		
DK	X	(53)
Ref	R	

15A. What was the most significant reason you decided to take out an IFDA-sponsored loan? (DON'T READ LIST - ONE ANSWER ONLY)

15B. What were the other reasons that lead to your decision to take out an IFDA-sponsored loan? (DON'T READ LIST - MULTIPLES OKAY)

	15A MAIN		15B OTHER	
Lower interest rate	1	(54)	1	(56)
Higher loan amount	2		2	
Refused a loan elsewhere	3		3	
Lower collateral requirement	4		4	
Other (SPECIFY) _____	5		5	
None/No Others	0	(55)	-	
DK	X		0	(57)
Ref	R		X	
			R	

16. Was the IFDA-sponsored loan the first farm loan you have ever taken out?

Yes.....1
No.....2 (58)
DK.....X
Ref.....R

17. Would you have been able to complete this purchase or transaction if you had not received your IFDA loan?

Yes.....1
No.....2 (59)
DK.....X
Ref.....R

18. Which of the following answers best characterizes your situation? Was your IFDA-sponsored loan...(READ ALL 3 LISTED)

Necessary for the continuing operation of your farm.....1 (60)
Necessary only for expansion purposes.....2
or, Your only opportunity to enter into farming.....3
(DON'T READ) Other _____.....4
(DON'T READ) DK.....X (61)
(DON'T READ) Ref.....R

19. Is your farm operation currently in a positive cash flow situation - by this I mean, are you servicing all of your outstanding debts from the proceeds of your farm operation?

Yes.....1 (SKIP TO Q. 21) (62)
No.....2
DK.....X
Ref.....R

20. Is your farm operation covering the payments on your IFDA loan?

Yes	1	(63)
No	2	
DK	X	
Ref	R	

21. Is <u>your principal income</u> from your farm operation?

Yes	1	(64)
No	2	
DK	X	
Ref	R	

22A. Prior to receiving your IFDA loan, did you have any type of relationship with a lending institution?

Yes	1		(65)
No	2	(SKIP TO Q. 22C)	
DK	X	(SKIP TO Q. 22C)	
Ref	R	(SKIP TO Q. 22C)	

22B. Overall, how would you characterize the relationship you had with this lending institution's loan officer prior to receiving the IFDA loan? Would you say it was...

Very good	5	(66)
Good	4	
Fair	3	
Poor	2	
or, Very poor	1	
(DON'T READ) DK	X	
(DON'T READ) Ref	R	

22C. Has the IFDA program enabled you to develop a good working relationship with a/this loan officer?

Yes	1	(67)
No	2	
DK	X	
Ref	R	

These last few questions are just to group your answers with the other farmers participating in this study.

23. What is the highest level of education you've had the opportunity to complete? (READ LIST IF NECESSARY)

Less than high school	1	(68)
High school graduate	2	
College graduate (4 years)	3	
Post graduate work	4	
Other (SPECIFY)	5	
_____		
Ref	R	

24. Immediately prior to receiving your IFDA loan, were you actively engaged in farming?

Yes	1	(SKIP TO Q. 26)	(69)
No	2		
Ref	R	(SKIP TO Q. 26)	

25. What were you doing prior to getting involved in farming? (DON'T READ THE LIST - ONE ANSWER ONLY)

School.....1
Non-farm employment.....2
Other (SPECIFY).....3

_____

Ref.....R (71)

(IF "LAND" IN Q. 1 SKIP TO Q. 27)

26. Do you...

Own your farm.....1 (72)
or, Rent your farm.....2
(DON'T READ) Ref.....R

27. Have your parents ever been actively involved in farming?

Yes.....1 (73)
No.....2
DK.....X
Ref.....R

(IF Q. 28 INFO IS LISTED ON SAMPLE, RECORD IT AND SKIP TO Q. 29)

28. What is your age? (READ LIST)

Under 20.....1 (74)
21 - 25.....2
26 - 30.....3
31 - 35.....4
36 - 40.....5
41 - 50.....6
or, Over 50.....7
(DON'T READ) Ref.....R

(IF Q. 29 INFO IS LISTED ON SAMPLE, RECORD IT AND TERMINATE)

29. What is your approximate net worth? (READ LIST)

Less than $25,000.....1 (75)
$25,000-$75,000.....2
$75,001-$125,000.....3
$125,001-$175,000.....4
$175,001-$225,000.....5
$225,001-$275,000.....6
$275,001-$325,000.....7
$325,001 +.....8
Dont' Know.....X
Refused.....R

DO NOT ASK NAME AND ADDRESS - JUST RECORD FROM SAMPLE

Thank you for your participation in this study.

BLANK (76-79)
1-(80)

Senator PRESSLER. Thank you all very much. I think your testimony has been very useful.

Let me ask this to any volunteer. The Treasury Department has argued that the proliferation of the small issue IDB's has driven up the cost of public purpose tax exempt borrowing. What are your views on Treasury's definition of small issue IDB's as private purpose bonds? It seems to me that by creating jobs, these bonds serve a public purpose. Also, do these bonds crowd out the market for public borrowing?

Mr. BOWMAN. If I might, Mr. Chairman, I do not view them as private activity bonds. I view that rather as bureaucratic slight of hand. I know that people at Treasury have labeled them private activity bonds. They didn't like them when I worked there 6 or 7 years ago.

Public purpose is an interesting phenomenon, but I think they are as public purpose oriented as they create jobs and help the workers and businesses of this State as housing bonds are, as water and sewer bonds are, as highway bonds are, and any other type of so-called public purpose bond. So, I think on that question, they are clearly public purpose.

On the other, they are such a small part of the overall municipal market, the public purpose bonds for industrial development purposes, that they in no way can drive up the cost of borrowing for the other more traditional municipal borrowings. I don't know an economist who would support that claim except those at the Treasury Department. They only represent 2 to 3 percent of the market, and that kind of proliferation or doubling, even, over the last few years in no way caused the higher interest rates. I just feel very strongly that Treasury is wrong on that, and I have let them know. As you know, they remain unconvinced.

Mr. KIREKER. Senator, if I could add to Bob's comment, Kidder Peabody recently completed a study of the municipal market and the credit markets as a whole over the past 10 years. They found that the supply of tax exempt bonds relative to the total credit market had decreased by 18.4 percent over the last decade. So, while there has been steady growth in bond issuance, there has been an even greater growth in the credit market of this country as a whole. So, everything is relative.

Second, with small issue IDB's, they are such a tiny percentage, as Bob indicated earlier, to assume that they can push up the rate of interest on a general obligation bond issued by the State of Michigan is preposterous when most of these small issue IDB's are being placed privately to local banks, local savings and loan institutions. They aren't even players in the credit market to which Bob sells his GO bond.

Senator PRESSLER. I might add to that a question, who buys these small bond issues? Are they offered publicly or are they privately placed? Mr. Bailey, I was particularly interested in how the State of Illinois has used tax exempt bonds to assist agriculture and agribusiness. You might tell us who buys those small issue bonds.

Mr. BAILEY. All of our bonds which we issue through the Illinois Farm Development Authority are private placement bonds. Private lending institutions purchase these bonds. We have 385 banks throughout the State of Illinois that are signed up and are actively

participating in our program right now. So, the lending institution buys the tax exempt bond from the Illinois Farm Development Authority.

Mr. KIREKER. In the case of Massachusetts, they are overwhelmingly bought by banks and other local financial institutions or investors and they are not sold through the public credit markets.

Mr. ENGEL. All of the bonds that the Aberdeen Development Corp. has sold have been purchased by local lending institutions.

Senator PRESSLER. How are you able to convince those lending institutions or banks who frequently don't need the benefits of tax exempt bonds to participate in the program?

Mr. ENGEL. They are sometimes hard. When our banks just say we aren't going to buy any for 6 months, we just wait 6 months.

Mr. BAILEY. If I could point out, Senator, we have several small banks active in our programs. The average size of the bank that we work with through our program is approximately $57 million in assets. So, we are talking about small rural banks. We have one small bank in central Illinois that has less than $20 million in assets that has purchased over $3.5 million in bonds through our program.

They do not need the tax exempt income, but why they are looking at our program is to help stimulate the economy in their local community. They have helped out several agribusinesses. They have taken farm land off the market which helps to firm up farm land prices. They are looking at this as basically a public service to their community.

Mr. KIREKER. I might just add, many times the banks are interested in their overall client relationship. While they don't need to purchase the bond from a tax standpoint, they have other kinds of banking relationships with that company, and it is an important community service for them to participate in the program.

Senator PRESSLER. How have some of the reforms made by the Congress in the Tax Equity and Fiscal Responsibility Act of 1982 and the Tax Reform Act of 1984 affected the use of small issue bonds? Were the abuses that these acts sought to curb, in your judgment, real?

Mr. KIREKER. There were certainly isolated financings in some parts of the country prior to 1982 which most of us would not want to see financed with this program, and Congress acted correctly to eliminate categorically those kinds of projects. That purpose has been achieved through the 1982 and 1984 legislation. We feel that what is left is the main line, solid public purpose projects.

Mr. BAILEY. Senator, I might point out in agriculture, as you are probably aware, there were some abuses prior to the 1984 act. The 1984 act has basically restricted aggie IDB's for young farmer programs and for agribusiness which has eliminated virtually all abuses that were there in agriculture.

Senator PRESSLER. I want to thank this panel. I might say that Calvin Engel's son, Jim, is also with us today. Jim, we are glad to see you.

There may be some additional questions for the record we will be asking you, but I want to thank this panel. I think you have provided very useful testimony that will be used when we begin analyzing the Treasury's proposal.

Our last panel consists of Ira McCown who is with the firm of Donaldson, Lufkin, & Jenrette of New York and Mr. Lee White, vice president and manager, Denver Public Finance Office, Smith Barney, Denver, CO. I will call on Ira first. Ira, we are glad to see you here.

STATEMENT OF IRA McCOWN, SENIOR VICE PRESIDENT, DONALDSON, LUFKIN & JENRETTE, NEW YORK, NY

Mr. McCOWN. Thank you very much. For the record, my name is Ira McCown. I am a senior vice president with Donaldson, Lufkin & Jenrette in New York. I would like to thank you, Mr. Chairman, for inviting me here today.

Essentially, I would just like to speak a little bit about the role of the underwriter in the small issue IDB market, in particular, and IDB's in general.

We heard from the prior panel that in the vast majority of cases where small issue IDBs are involved, they are privately placed by the various issuers involved with local banks, particularly smaller rural banks. This is indeed the case.

However, people such as myself in the investment banking industry are approached by business interests who have more complex financings to put together and typically larger financings, perhaps approaching the $10 million limitation, for which they need particular expertise in attempting to sell these bonds. Because so many of the small banks do not have the capital necessary to perhaps purchase a $7 or $8 or $9 million issue, we find that these issues do need to be publicly offered.

I would like to spend a little time explaining the role of the investment banker and what services we provide. Many people at Treasury take the attitude that investment bankers are generally middlemen who are simply increasing the cost to finance. While it is true that we do charge a fee, we feel that we provide a valuable service in return for charging that fee.

I would like to use as an example a Brentwood, TN medical facilities building that had a total cost of about $7.75 million. Brentwood is an area located maybe 50 miles from Nashville. It is a semi-suburban, semi-rural area that encompasses a lot of different parts of Americana, if you will. The number of doctors in this community and its medical service individuals felt that they needed a local medical facility to care for their patients who otherwise would have had to travel to the city of Nashville, as I said, some 40 or 50 miles away.

They also realized that they would be unable to attract competent medical personnel without an adequate facility in the area. Due to the fact that there was no charitable organization in this area set up with the apparatus to raise money via charitable donations, in fact, they tried that and it flopped, they began to set about attempting to raise money through the private sector.

They went to several banks and insurance companies and attempted to do a taxable finance. They discovered that because the people in this area were primarily low to low-moderate income individuals who could not afford high medical fees, yet in many cases either were unwilling to participate or ineligible for Medicaid par-

ticipation, the pro forma income statements for this medical facility would be insufficient to service debt that was done in a conventional financing market.

Therefore, the project languished for quite a while until they approached a group of investment bankers with which I was associated and were able to structure a tax exempt issue of private purpose, as the Treasury would label it. Again, I would like to emphasize that I think medical facilities have a pretty good public purpose. Public health is certainly a good public purpose as far as I am concerned. Through this mechanism, they were able to structure an issue which we went back to a number of the regional financial institutions to do it on a taxable basis, and these financial institutions said OK, we will guarantee your tax exempt issue because it is clear you will have the revenues to support a financing done at 8 percent interest rates where the equivalent taxable interest rates would have been 13.5 percent and the project could not have supported those interest rates.

That is an example of the type of role that the investment banker has served, because in that particular case what I had to do was approach the various financial institutions and find out who would issue this kind of bond. I view the role of the investment banker in the private issue IDB market or what I just call the IDB area, small issue IDB's, as being putting together the more complex, larger deals that are perhaps in the $7 to $10 million range and arranging for what we in my industry refer to as credit financing necessary to make these issues attractive to the investing participant.

Credit enhancement is very important in public offerings, because the investing public where you have smaller individuals who are buying these bonds, not large institutions in most cases, want to know that their interest and principal are going to be paid on time. They are not just willing to take the word of a small company that may be the beneficiary of the funds of the IDB. They want a large institution on the line. It is the job, if you will, of the investment banker to make sure that that is done.

Another example I would like to cite will be my last example. It is what I consider the first precedent of the small issue IDB and that is an area I spend a great deal of my time in and that is multifamily housing deals or apartment finance. We are working right now in Louisiana in a relatively far away suburb of New Orleans called Avondale. Avondale is largely a blue collar community. Its one main employer is a large shipyard. It builds quite a few naval vessels as well as some private vessels, too.

Their business has been booming. However, even with the relatively high blue collar skilled jobs in terms of income they offer, they have been having difficulty attracting workers. The reason they have been having difficulty attracting workers is because there is a lack of affordable or even available housing in the area.

That gets somewhat complex because it has to do with the State of Louisiana didn't realize there would be a need for housing in that area so they didn't provide pumping. Much of the land is below sea level adjacent to the Mississippi River at that point. However, they have recently made the pumping available, and now they are very desirous of having housing built in this area.

They approached my firm and said would we be willing to purchase these bonds and make sure that this housing gets built. It is not some huge corporation coming into this housing. Instead, it is groups of individual construction firms, largely family run businesses that employ 10 to 20 individuals, who want to do in some cases large and in some cases small apartment developments to house these employees.

Certainly, they could go out and try to obtain taxable funds. The problem is that because of the high cost of such taxable funds, they would be unable to charge rents for these apartments that would be at all in line with what the workers of this shipyard could afford to pay. So, they are taking advantage of the IDB Program in a very positive way, it seems to me, and indeed something that is also, in my estimation, in the public interest, provision of housing for a major employer in that area.

It has two results, frankly. It helps the Avondale shipyards in increasing their employment because people just refuse to drive huge distances to work there even though the wages paid at that yard are above the average in the area. Second, it provides the jobs to construct these houses and make sure that affordable housing is available to the workers there. So, it is creating jobs in two ways, if you will.

I think that is the greatness of what our IDB Program does in this country. It provides for small businesses, in many cases in rural areas but in some cases in suburban or urban areas as well. But for the small businesses who do create the majority of our country's jobs to obtain affordable financing and expand to build projects that would frankly otherwise not be built because the cost of capital in the traditional marketplace is just too expensive for some of the projects which are not on a direct return basis or cost effective, but when coupled with the lower cost of tax exempt financing, they work.

I am proud that I can be a part of that process. Once again, I realize that the investment bankers are not involved in the vast majority of these small issue IDB's, but we do play an important role in perhaps some of the larger of these deals that do create a number of jobs and are important in our Nation.

Thank you.

[The prepared statement of Mr. McCown follows:]

Statement of

IRA McCOWN
SENIOR VICE PRESIDENT
DONALDSON, LUFKIN & JENRETTE

Before the

SUBCOMMITTEE ON THE FAMILY FARM

Of the

SENATE COMMITTEE ON SMALL BUSINESS

May 22, 1985

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Mr. Chairman and Members of the Committee:

My name is Ira McCown. I am a senior vice president at Donaldson, Lufkin & Jenrette, and I appreciate the opportunity to appear before you today.

My comments here will address the important role of tax-exempt industrial revenue bonds in making capital available to small businesses across the nation. In addition, I would like to submit for the printed record a technical paper summarizing the impacts on the "industry" of the Treasury Department's tax reforms which were proposed last November. First, however, to provide you with background information, I will tell you a bit about my firm--DLJ--and about the role of investment bankers, generally, in the issuance of tax-exempt bonds.

° The Role of Investment Bankers

DLJ is an international investment banking firm which provides a broad range of asset management services. Among our public finance services are those related to single- and multi-family housing bonds, public power financing, student loans and education financing, industrial development bonds, and health care and special projects financing. We are currently engaged in structuring tax-exempt financing in Louisiana, Kentucky, New York, Arkansas and a number of other States across the country.

A critical function of investment bankers is to match available capital in search of investment opportunities with

deserving projects in search of funds. In our complicated economy, there often is no other way to bring about such matches. Particularly in rural areas, promising projects do not necessarily have ready access to major financial institutions. For projects where a special effort is needed to achieve financing, investment bankers can offer a whole set of services related to identifying and structuring funding arrangements.

In the issuance of tax-exempt industrial revenue bonds, DLJ, like other investment bankers, serves as the underwriter. Among other services, the underwriter structures the issue and assumes the risk of whether the tax-exempt bonds will sell. Simply described, when tax-exempt bonds are issued to finance housing developments or industrial expansions, or for any number of other public purposes, the process works like this:

- A State or other public authority screens potential projects to assure consistency with a public purpose and serves as the issuer. In that capacity, it sells the bonds to the underwriter at a discount. The issuer thereby has funds in hand and is thus not at risk that the bonds will not sell.
- The issuer then takes the money received from the underwriter and makes it available to the developer, which may be a small business or some type of partnership, at a rate which is more favorable than the taxable cost of money.

- The underwriter takes full responsibility for selling the bonds to the public at the face amount, and at the same time must fully disclose the terms of the transaction to potential buyers.
- The purchasers of the bonds generally bear the risk that the developer will pay the interest and ultimately the principal on the bonds. However, underwriters, through the mechanism known as "credit enhancement," may assist the bond purchasers by finding a guarantor and structuring a guarantee for the repayment of the bond principal and interest.

Throughout the process, the investment banker must bring its expertise to bear in raising capital in a manner which complies with the law, which meets the developer's needs, which results in the lowest possible interest rate, and which minimizes the risk to the public authority and to members of the public, generally. In addition, the underwriter must assess the feasibility of the project and examine the cash flows to determine whether the project supports the amount of bonds proposed to be issued.

- <u>One Example of a Multi-Family Housing Project</u>

From my own experience with DLJ, and with other investment banking firms in earlier years, I can speak to the vital role which IDB's are playing in rural areas and other parts of the nation where capital is scarce. The existence of IDB's and other specialized types of tax-exempt bonds means that affordable capital is available for a wide range of facilities

including not only multi-family housing, with which I am particularly familiar, but also grain elevators, alternative energy facilities, small industrial expansions, transportation services, and many more. Not only does the existence of such bonds mean that many necessary projects can be undertaken, but it significantly expands the number of small businesses which can be involved in such projects. It means that economic development can occur, and services can be provided, even in communities which do not have access to the largest banks and deepest corporate pockets.

To illustrate the kind of projects which are encouraged by the existence of IDB's, I would like to briefly describe a project I am working with now involving an issue for multi-family housing revenue bonds. The developer in this case is a contributing member of his community and has worked for years to build a business that involves his whole family. He, himself, is a man with many years of experience in the construction industry; one of his sons is an architect with substantial experience in multi-family housing; another son is a lawyer with special expertise in zoning, permitting, and real estate law; and his daughter has years of experience in managing and marketing rental housing.

For this family development team, the housing project now underway not only is a dream which is coming true, but the culmination of a lifetime of careful planning and building. However, although these people are solid members of the community, with a good credit history and an excellent likelihood

of success, it is probable in today's capital market that without the existence of tax-exempt multi-family housing revenue bonds they simply would not be able to find financing sufficient to make their dream a reality. Although by most standards this family's financial statements look very healthy, without the existence of IDB's they would have difficulty in attracting investment capital at rates favorable enough to permit development to go forward.

This particular project will involve about 700 rental units in a part of the country where housing is scarce and demand for attractive garden apartments, particularly among blue collar and lower income workers, is very high. The construction project will involve local workers and the purchase of materials from a range of businesses in the immediate area, across the State and across the country. All of this means jobs. Furthermore, the completed project will meet a clear community need and its operation will contribute to the local economy. It is the existence of tax-exempt IDB's which makes this development possible.

• The Special Role of IDB's Is Being Challenged

Because the interest on tax-exempt industrial development bonds is excluded from the holder's income for Federal income tax purposes, industrial development bonds generally bear a rate of interest significantly below the interest on comparable taxable debts. This in turn allows issuers to make funds available to the ultimate user at rates below those which the ultimate user would have to pay if it borrowed from a taxable

source. This interest differential permits the construction of projects which serve a legitimate public purpose and which would otherwise not be able to attract financing.

Tax-exempt financing has the flexibility to provide what is needed at a minimal risk to the public. The issues, of course, must be carefully structured to protect the public. Once that is done, however, and the project is underway, the benefits become obvious. This Committee is very well aware of the difficulties which small businesses, farmers and the companies which are serving farmers are having in finding the money necessary to help them develop and improve their economic situation. Tax-exempt financing, such as these IDB's, provides a critical alternative.

Small-issue IDB's, for which the law requires project capital expenditures to be less than $10 million, are particularly able to offer financing opportunities in rural areas. In sparcely populated regions, the scale of facilities may be smaller than we often see in cities. At the same time, capital may be particularly scarce for a variety of services which may be needed by a community, by its farmers, by its workers. Under current law, small-issue IDB's are available through the end of 1986.

If proposals to severely limit the ability of State and local governments to raise capital on a tax-exempt basis are indeed enacted by the Congress, there will be no such alternatives; and the problems facing small businesses and

particularly those in rural areas will be much more severe than those you are seeing today.

The availability of tax-exempt financing is already subject to numerous significant restrictions to ensure that the benefit of such financing is provided only to projects which serve a legitimate public purpose. Obligations whose proceeds will be used to any significant extent by non-exempt users must satisfy numerous rigorous requirements in order to retain their tax-exempt status. The project financed by the bonds must fit in one of several carefully defined categories of exempt facilities, such as solid waste and pollution control facilities, low income multi-family housing facilities, and similar public facilities. IDB's are subject to public scrutiny through a hearing and approval process, and the total quantity of tax-exempt IDB's that may be issued in each State is subject to a cap determined by reference to the State's population. Other limits include prohibitions against Federal guarantees of exempt obligations, registration requirements, subsidy and arbitrage limits. These limits collectively ensure that the benefits of tax exemption are reserved for projects which serve a legitimate public purpose so that the right to issue tax-exempt debt is not otherwise abused.

It is particularly inappropriate at this time to impose further limits on the availability of tax-exempt financing. The two most recently enacted tax bills, the Tax Equity and Fiscal Responsibility Act of 1982 and the Deficit Reduction Act

of 1984, impose significant limits on the right to use tax-exempt financing. These restrictions were designed to provide further assurances that the benefit of tax-exempt financing is reserved for projects which serve a legitimate public purpose. The effect of these two recent bills is only now beginning to be felt. Because of the positive benefits of tax-exempt financing, Congress should not impose further restrictions on its use until it has had an opportunity to evaluate the effect of these new restrictions.

Various proposals, including the Treasury Department's November tax reform proposal, would indeed drastically limit the availability of IDB's and other bonds. Experts have predicted that under the November proposal the availability of such bonds would be reduced by as much as eighty percent. Attached to this statement, and submitted for the printed record, is a summary of the impact of the Treasury proposal. Essentially, under a new test for the tax exemption, interest on governmental obligations would be taxable if more than one percent of the proceeds were used directly or indirectly by any person other than a State or a local government. The proposal also would prohibit all advance refundings of outstanding obligations. Thus, State and local governments would no longer be able to take advantage of a drop in market rates to lower their overall borrowing costs. The proposal would impose new arbitrage restrictions on all governmental obligations and financing alternatives would generally become more scarce for numerous kinds of facilities.

° Conclusion

Access to affordable long-term financing for expansion and improvement of small business projects is a serious problem. Investment bankers working with State and local governments have recently participated in a range of beneficial programs to structure financings through the use of small-issue, and other, IDB's. Proposals to restrict the availability of such tax-exempt financing would seriously exacerbate the problem which small businesses are facing.

I appreciate the opportunity to appear before you today. I would be happy to answer any questions at this time or to provide additional materials for the record.

ATTACHMENT TO DLJ STATEMENT

February 1, 1985

TREASURY TAX REFORM PROPOSALS
AFFECTING TAX EXEMPT OBLIGATIONS

SUMMARY

The Treasury Department's tax reform proposals reported to the President and entitled "Tax Reform for Fairness, Simplicity, and Economic Growth", published November, 1984 (the "Proposal"), if enacted into law, would severely limit the ability of State and local governments to raise capital on a tax-exempt basis. The Proposal would eliminate the exclusion of interest from income on all industrial development bonds, (including multi-family low-income housing bonds), student loan bonds, mortgage subsidy bonds, exempt organization bonds, and certain other bonds. The Proposal would replace the current provisions of Section 103 of the Internal Revenue Code of 1954, as amended, (the "Code") with a new test for tax exemption. Under the new test, interest on governmental obligations would be taxable if more than one percent of the proceeds were used directly or indirectly by any person (including an exempt organization) other than a State or local government. In addition, the Proposal would prohibit all advance refundings of outstanding obligations. State and local governments would no longer be able to take advantage of a drop in market rates to

lower their overall borrowing cost. Finally, the Proposal would impose new arbitrage restrictions on all governmental obligations, including a requirement that arbitrage profits be rebated to the United States. The specific proposals and the effect of the proposed new rules on commonly issued obligations are discussed below.

A. BACKGROUND

Under the general rules of Section 103 of the Code, interest on obligations of a State or political subdivision is excludable from income for federal income tax purposes. If, however, the obligations are "industrial development bonds" ("IDBs") the interest is not excludable unless certain exceptions are met. Obligations are IDBs if more than 25 percent of the proceeds are to be used in the trade or business of a non-exempt person (a person other than a governmental unit or a tax-exempt organization) and more than 25 percent of the debt service is derived from or secured by property used in or payments from a trade or business. Under the current law provided in Section 103(b)(4), (5) and (6) of the Code, the interest on obligations issued by or on behalf of States or their political subdivisions for the benefit of private enterprises is exempt from federal income taxation if substantially all of the proceeds are used to provide certain exempt activities (including public or quasi-public facilities such as airports, docks and wharves, sewer, solid waste and pollution control facilities), industrial parks and

certain other private "small issue bond" facilities meeting the requirements set forth in the Code. These tax-exempt IDBs are subject to a number of procedural requirements, including public approval and reporting requirements, and to special arbitrage rules. Interest on obligations issued by or on behalf of States or political subdivisions to finance other projects for tax-exempt organizations such as hospitals and educational installations and to finance non-trade or business activities such as the making of student loans is generally exempt under the rules of Section 103(a) of the Code as non-IDBs.

B. REPEAL OF TAX EXEMPTION FOR NON-GOVERNMENTAL BONDS

1. The One Percent Rule

The Proposal would repeal the provisions of Section 103(b), relating to industrial development bonds, and Section 103A, relating to mortgage subsidy bonds, and replace these provisions with a new test for tax exemption. Under the new test, interest on governmental obligations would be taxable if more than one percent of the proceeds were used, directly or indirectly, by any person other than a State or local government. Use of a facility financed with bonds would constitute use of the proceeds. The term "use" is not further defined in the Proposal.

The Proposal does not define the term "State or local government" as used in this context. In another context, however, the Proposal requires that all issuers of tax-exempt

obligations be "State or local governments" and specifically provides that bodies that issue on behalf of State or local governments do not come within that language. Moreover, the Proposal uses the term "local government" rather than the term "political subdivision," used in Section 103. The term "local government" might encompass a narrower class of entities, such as towns, cities, villages and counties and not other entities established pursuant to State law that possess one of the three sovereign powers, namely police power, taxing power or eminent domain power.

2. Exceptions

An exception to the general one percent rule set forth above would cover facilities used by the general public if such use were on the same basis for all members of the general public. This exception would clearly cover issues to finance roads, bridges, and governmentally-owned water and sewer facilities. The Proposal also clarifies that this exception will reach bonds issued to finance the extension of a road or sewer line to a private home or business. The Proposal would require that any public system such as a water, sewer, or resource recovery system be owned by a governmental person. The Proposal would, however, permit the operation of a facility by a non-governmental person pursuant to a short-term management contract.

The Proposal calls for allocation rules which would permit tax-exempt financing for a proportionate share of the

cost of a facility used in part for public and in part for private purposes. In an example, the Proposal provides that the portion of a government building which is leased to a non-governmental person for more than a brief interim period cannot be financed with tax-exempt obligations.

The Proposal would extend to all tax-exempt bonds certain of the requirements of current law applicable to IDBs, such as the requirement of reporting all IDBs issued during each calendar quarter to the Internal Revenue Service. Current restrictions relating to the prohibition against federal guarantees and, presumably, the registered bonds, and arbitrage restrictions would be retained and in the case of the arbitrage rules expanded as described below. The Proposal would preserve the tax exemption for obligations issued to finance ordinary governmental operations, such as tax anticipation notes.

3. Effective Date

The proposed one percent rule would be effective for obligations issued on or after January 1, 1986. A transition rule would permit current refundings of outstanding obligations if the refunding does not extend the weighted average maturity date of the obligations outstanding or exceed the outstanding amount of the refunded obligations.

4. Application And Analysis

The proposed one percent rule would eliminate the tax exemption for virtually all so-called "private-benefit"

financings, notwithstanding the clear public benefits associated with such financings, including:

Industrial Development Bonds;

Single-family Housing Bonds;

Veterans Bonds;

Student Loan Bonds; and,

Exempt Organization (e.g., hospital and university) Bonds.

Included under "Industrial Development Bonds" are obligations to finance the following types of facilities in which a non-governmental entity is an owner or user of more than one percent of the facility:

Multi-family Rental Housing;

Sports Facilities;

Convention or Trade Show Facilities;

Airport Facilities;

Docks and Wharves;

Mass Commuting Facilities and Vehicles;

Parking Facilities;

Sewage Facilities;

Solid Waste Facilities;

Facilities for the Local Furnishing of Electric Energy or Gas;

Air or Water Pollution Control Facilities;

Water Facilities;

Hydroelectric Generating Facilities;

Local District Heating or Cooling Facilities;

Industrial Parks; and,

Small Issue Bond Facilities.

Certain facilities, such as sewer, water, power and solid waste facilities, may still be eligible for tax-exempt financing so long as no non-governmental person is the owner or user of more than one percent of the facility. No guidance has been given as to how use would be measured. For example, in the context of a lease, square footage or fair rental value are possible tests.

A specific exception would apply to short-term operating or management contracts. The term "short-term management contract" is not defined in the Proposal; the Internal Revenue Service, however, has provided a definition in Rev. Proc. 82-14, 1982-1 C.B. 459, for purposes of the IDB determination. Under Rev. Proc. 82-14, in order for the manager not to be treated as using the property in his trade or business, the management contract must provide for compensation based on a reasonable periodic flat fee as opposed to a percentage of gross revenues. The term of the contract, including renewal options, may not exceed 5 years. If the term exceeds 2 years, the owner must be able to cancel at the end of 2 years.

The Proposal is silent as to whether use of a facility encompasses the taking of output. Current law would treat certain output arrangements (e.g., take or pay contracts) as use. The issue will arise most clearly in the context of

power facility and resource recovery facility financings in which the output of the facility is sold to a private person. The Proposal describes a governmentally-owned resource recovery facility as an example of a facility eligible for tax-exempt financing without any discussion of the output arrangement. Thus it is not clear whether an output arrangement will constitute use. Resolution of this issue will affect the eligibility for tax-exempt financing of all power facilities, including electric, gas, hydroelectric and resource recovery facilities.

The Proposal seems to clearly eliminate tax-exempt financing for public facilities that are leased to private entities on a long-term basis such as most airports, sports facilities, and dock and wharf facilities. While the Proposal sanctions use of a facility by members of the general public, it does not address the limits of such use. Under current law use of a facility by private persons on a short-term, rate-scale basis does not cause obligations to be IDBs. If retained, this exception would be particularly applicable to convention or trade show facilities, sports facilities and parking facilities.

The private activity obligations described above are clearly targets of the Treasury's Proposal. The scope of the one percent rule, however, is broader than just these private activity bonds. Many general obligation ("G.O.") bond issuers such as States and municipalities have just begun to

appreciate the new limitation on consumer loan bonds imposed by the Tax Reform Act of 1984. This new limitation treats as taxable the interest on obligations if more than 5 percent of the proceeds are used directly or indirectly to provide loans to non-exempt persons unless the obligations are IDBs or Qualified Mortgage Subsidy Bonds. Many G.O. issuers had developed programs under which an amount equal to 25 percent or less of the proceeds of an issue was applied to the financing of loans to private persons. Other programs might have included loans for energy conservation by homeowners and businesses and loans to boarding houses or nursing homes. The Proposal would limit the use of the proceeds of G.O. bonds for any private purpose to no more than one precent of the issue. Regulations have not yet been promulgated under the consumer loan bond provision; the Joint Committee on Taxation's General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984 indicates that the term "loan" in the consumer loan provision will be broadly interpreted to reach the substance of a transaction.

The Proposal would extend certain of the requirements of current law applicable to IDBs to all obligations. Besides the reference to the IDB reporting requirement, no details are given as to what these additional requirements might be. Possible restrictions would include the requirement that obligations be the subject of a public hearing and be subject to approval by the chief elected executive officer or a

legislative body and the requirement that the average maturity of the obligations not exceed 120 percent of the average economic life of the property financed. The reporting requirement mentioned in the Proposal currently mandates reporting to the Internal Revenue Service of all private activity bonds (IDBs, student loan bonds and exempt organization bonds) issued during a calendar quarter. Extension of this requirement to all bonds would impose IRS reporting on all governmental issuers. The hearing and approval requirements may be met by current procedures of G.O. issuers. The 120 percent limitation is intended to prevent the issuance of debt that extends substantially beyond the life of the property financed.

C. ARBITRAGE

1. Rebate

The Proposal would generally require that arbitrage on non-purpose obligations be rebated to the United States. This proposal is similar, if not identical, to the new rebate requirement imposed on IDBs issued after December 31, 1984. The term "non-purpose obligation" refers to any obligation acquired with the proceeds of the bonds other than obligations acquired to carry out the purpose of the issue. For example, obligations acquired with proceeds of bonds on deposit in a construction fund pending construction of a sewer system are non-purpose obligations.

By analogy to the IDB rebate rule, the rebate amount would be the difference between the actual earnings on non-purpose obligations from the date of issue to the date the computation is made over what those investments would have earned if invested at the bond yield. In effect, all positive arbitrage over the life of the bonds would be required to be rebated to the federal government. This requirement would apply to the investment of all funds and accounts with respect to the bonds.

2. 150 Percent Limitation

In addition to the rebate requirement, the Proposal would impose a limitation on the amount of non-purpose obligations permitted to be invested at a yield in excess of the yield on the bonds equal to 150 percent of annual debt service, with exceptions for the temporary periods and for bona fide debt service funds. This rule would apply primarily to reserve funds and would be in addition to the current reserve fund limitations.

Under the Proposal, for purposes of both the rebate rule and the 150 percent limitation, yield on the bonds and on acquired obligations would be computed without regard to the recovery of costs of issuance, underwriters' discount, credit enhancement fees and other costs.

3. Deliberate Arbitrage

Under current law, the arbitrage restrictions are couched in terms of the issuer's reasonable expectations as of the date of issuance of the obligations. Such expectations, and not actual events, determine whether obligations are arbitrage bonds. There has been confusion as to the application of the arbitrage rules to funds that come into existence after the date of issuance, for example, from the sale of the financed project. Indeed, the Internal Revenue Service has announced that it will no longer rule on the application of the arbitrage rules to such funds. The Proposal would clarify that the reasonable expectation test will protect the issuer against inadvertent errors and not intentional acts to create arbitrage. Thus, for example, any fund established to pay debt service on the obligations, including proceeds from the unexpected sale of the project, will be subject to the rebate requirements. It will no longer be relevant that the creation of such a fund was not anticipated at the date of issuance.

4. Temporary Period

Under the Proposal the temporary period rules that permit unlimited investment of proceeds until used would be more restrictive than current rules. Current law provides a temporary period of up to three years (five years, in certain cases) for the unrestricted investment and reinvestment of proceeds.

The Proposal would make several changes to the current rules. First, no temporary period would be permitted for bonds issued to finance acquisitions of property. Early issuance of bonds would be prohibited. The issuer would be required to spend a significant part of the bond proceeds within one month and all bond proceeds (exclusive of reserve amounts) within three years. The temporary period would terminate when the project is substantially completed and would in all cases be limited to three years.

5. Advance Refundings

The Proposal would prohibit all advance refundings of tax-exempt bonds. Refundings would be permitted only to immediately retire the prior bond issue.

6. Effective Date

The arbitrage restrictions of the Proposal would be effective for obligations issued on or after January 1, 1986.

7. Application and Analysis

Under the proposed rebate rule the amount of arbitrage earned from the investment of bond proceeds would no longer be available for governmental purposes of State and local issuers. This proposal would insure that the benefit of arbitrage on the investment of funds inure to the federal government as opposed to local government. In effect, the Treasury would become a participant in each bond issue. State and local issuers would be required to issue more debt

or raise additional revenues to cover expenditures formerly funded from those investments.

The details of the proposed rebate rule have not yet been articulated. By analogy, however, to similar rules currently imposed on single family housing bonds and, now, on IDBs, the rebate calculation will require complicated annual computations of yield on the bonds and the investments. It will have a significant impact on issues that have reserve funds, such as certain resource recovery facility or sewer facility issues. It would also reach funds established to pay debt service on the bonds from the proceeds of sale, insurance, or other disposition of the financed property. It is not clear how, if at all, the rebate requirement would apply in the case of a tax or revenue anticipation issue. Moneys raised through a cash-flow borrowing are fungible with other funds and it cannot be determined when such funds are spent and no longer invested.

The 150 percent requirement would have its major impact on the amounts invested in reserve funds at a yield higher than the bond yield. Under current interpretation of the law, once the amount to be invested in a reserve fund is determined to be reasonably required, there is no requirement under the law that such amount be reduced as the obligations are retired. Generally, the reserve fund is maintained until the final maturity of the bonds and pays off the last maturing obligations. The 150 percent requirement would

restrict the investment of a portion of a reserve fund as obligations are retired on the theory that a larger amount is no longer reasonably required. This rule imposes administrative monitoring burdens. Furthermore, to the extent that the excess arbitrage from the investment of a reserve fund is required to be rebated to the federal government, the 150 percent rule seems to achieve no purpose whatsoever.

Unless the temporary period rule is an exception from the rebate rule, it, like the 150 percent rule, does not seem to achieve any purpose. The elimination of the temporary period for acquisitions would seem to achieve nothing more than is achieved by the current overissuance rule, which requires the application of earnings to the governmental purpose of the issue, other than to cause bonds to be issued in larger amounts. It is not clear whether the elimination of this temporary period would trigger taxability if bonds, in fact, were issued in advance of when the proceeds were to be used.

The prohibition on advance refundings could have a broad impact on G.O. issuers, especially since the Proposal does not contain any transition rules for the effective date of this provision. If an issuer desired to refund outstanding obligations, whether to achieve a rate savings or change covenants in an indenture, the refunding could be accomplished only as a current refunding. Many, if not most, currently outstanding obligations are not callable before the tenth year the bonds are outstanding. In such a case the refunding could not be done until the outstanding obligations are callable.

Senator PRESSLER. Thank you very much, Ira. I shall now call upon Mr. Lee White, vice president and manager, Denver Public Finance Office, Smith Barney, Denver, CO.

STATEMENT OF LEE WHITE, VICE PRESIDENT AND MANAGER, DENVER PUBLIC FINANCE OFFICE, SMITH BARNEY, DENVER, CO

Mr. WHITE. I will be brief, Mr. Chairman.

Senator PRESSLER. Are you the folks who make money the old-fashioned way?

Mr. WHITE. That is right. We try.

An example that the kind of programs that an investment banker does get involved in is a deal that I have been working on for the Colorado Housing Finance Authority has asked me to do which is a pooled IDB issuance which means that we put together a number of projects and are issuing bonds on behalf of the authority to finance a number of projects. It is an $11 million transaction, 16 projects, loans originated initially by seven banks spread all over the State of Colorado. They range from a cement plant addition in the lower Arkansas valley, a depressed part of southeastern Colorado, to purchase of a $350,000 computer aided design machine for a Denver architectural engineering firm.

These are projects where the borrowers who have relationships with their traditional banks find that the banks don't need the transaction and don't want to do a private placement. So, their only alternative is a public offering and that is where we get involved.

I am going to give Judy a copy of materials that have been distributed to borrowers and bankers all over Colorado. There is one entitled, "Offer your Small Business Customers Fixed Rate Financing Without Getting Yourself in an Interest Rate Fix." This is one for the banks to show to their small businessmen. This says, "Does Your Business Need Capital for Expansion?" and it describes the CHFA program that we have put together. I am going to ask Judy to give those to you, and maybe you can send them to Senator Armstrong because he doesn't share your views on this matter.

The arguments against financing you have all touched on. The question of inefficiency that the bankers rake off the spread and it doesn't target the need to small business as intended. The Treasury ignores the argument that commercial bankers in conventional financing also charge fees and that those are very comparable to the fees that we charge. In a private placement with an agent such as a banker involved, you are talking about no more than a point or a point and a half at most. In a publicly offered deal, you are talking about 2 or 2½ points at most. Those are very comparable rates to what a banker would charge to make a small business loan in the State of Colorado on a conventional basis.

So, similar sized fees are charged to businessmen in any case, and if you ask a businessman which would he rather have, the CHFA program in today's market we are going to provide fixed rate 10-year loans. That is 10-year fixed rate loans at about 11 percent when the small businessman's alternative is, in today's market, about 12.5 percent variable rate for 10 years. If you are a small businessman, which would you rather have? That is the all

in cost net of all fees of all bankers and all lawyers and all authorities.

I just think it is a specious argument that tax exempt costs more than conventional financing. It does not, and to the businessman it gives him a much better product in terms of a lower rate, but more importantly to most small businessmen, a fixed rate. That is, they can plan on a level or a constant debt service over the terms of their indebtedness, whereas if they are in a variable rate situation, who knows what prime is going to be at some particular point. It ruins their planning capacity and often their income statements.

The second issue is the abuses which everybody has testified to. They are largely curbed, to my knowledge.

The third issue is the question of overall loss of income to the Treasury. The cap is in place and operates well as far as I am concerned.

The final observation I would like to make derives from my former experience. I used to be the budget officer for the State of Colorado and am familiar with the budget pressures that State governments face. Most States authorize double tax exemption for IDB's as well as other tax exempt securities. As hard pressed as States are to balance their budgets, all of which are required to do so, I don't know of a single State that has even thought about much less proceeded to repeal tax exemptions for these securities in their States.

It is not a source of revenue that is ever mentioned in Colorado nor any of the other States I have mentioned as a possible source of revenue to meet budget pressures which are immense, as you well know, in South Dakota, CO, all over the country. The view is that these things more than pay for themselves.

Thank you.

Senator PRESSLER. Thank you very much.

I have some questions for both of you, some of which I shall ask on the record and some of which you have answered in your testimony. Let me ask you each this: Should the caps on this program of $150 per capita in each State or $200 million, whichever is greater, be maintained or should these restrictions be changed? If so, how? Does either of you have a comment on that?

Mr. WHITE. All the municipal government organizations, the U.S. Conference of Mayors, the National Governors Association, oppose the caps, but they are here and I am afraid they are here to stay. So, I don't think anybody in the industry or in local government is seriously proposing that that be changed in today's environment. The question really needs to be asked again, Senator, when and if these States bump up against it, but there are relatively few right now. In today's market, very few States have bumped up against the cap. In Colorado, it will probably happen next year.

Senator PRESSLER. Do you have any specific recommendations regarding extension of the small business IDB program which expires on December 31, 1986, except for manufacturing facilities which expires on December 31, 1988?

Mr. WHITE. I very definitely think both sunsets should be repealed.

Mr. MCCOWN. I would agree with both of Lee's statements. It seems to me that the caps are a reality. Most States perhaps have

put in place because of the caps some form of monitoring to make sure that all the projects that are to receive IDB financing are indeed worthwhile. We heard about that earlier. I think that in hindsight perhaps it was a good idea to impose these caps because it has forced the States to monitor their projects more closely.

In terms of the extension, I believe strongly that the projects and the companies in this country that benefit from small issue IDB's should not be cut off from this source of financing. We often hear the lament about our relatively weak trading posture vis-a-vis the Japanese Government and some of the European countries. It should be noted that in almost every other free economy outside of this country there is even more aid granted by the central government to small businesses to encourage their formation and expansion because of the realization that these are the seedlings, if you will, for the future giants and that from this relatively small amount of aid that IDB's provide, it is still very significant in terms of the future of what the United States is going to be able to produce from its private sector.

Senator PRESSLER. I might ask both of you, and you covered this somewhat, opponents of the IDB's always bring up the argument that the benefits of this program partially go to underwriters, bond counsels, and attorneys but it has been pointed out that a commercial loan has those same expenses. Why is it that we keep hearing this argument?

Mr. WHITE. Because people don't like bankers.

Senator PRESSLER. I see.

Mr. MCCOWN. That is very true. I think there is another reason which is that it is so readily apparent particularly in the public offerings where on the cover page of an official statement which is the offering statement used to sell IDB's there is often the recapping of the various fees charged by the underwriters and other parties to the financing. People look at these and say, gee, that is a lot of money.

What they don't realize, in many cases, is all of the time that went into making such a financing are a reality. It doesn't just happen in 1 or 2 days. It often takes months of preparation and lots of manhours. The reason for that in many cases is that the underwriters and the attorneys are second check, if you will, after the issuer, to make sure that the project is a worthwhile one and that the bondholders will be repaid.

So, for those services, I am sure Smith Barney charges fairly, and we charge fairly. It is a very competitive market out there, and if we were to try to, as Treasury puts it, rip off the public by charging too much, we would very quickly be out of business because our competitors would charge less. So, it is competitive and we try to do fair charges for a good job.

Senator PRESSLER. When the Treasury testifies, we shall send witnesses a copy of their testimony. We hope you will send your written comments. I expect that will up here next Wednesday.

I thank you very much. That concludes this hearing. I want to thank the witnesses, and I will close the hearing.

[Whereupon, at 4:27 p.m., the subcommittee recessed, to reconvene subject to the call of the Chair.]

SMALL ISSUE INDUSTRIAL DEVELOPMENT BONDS AS A SOURCE OF CAPITAL FOR SMALL BUSINESS EXPANSION

TUESDAY, JUNE 11, 1985

U.S. SENATE,
SUBCOMMITTEE ON SMALL BUSINESS: FAMILY FARM,
COMMITTEE ON SMALL BUSINESS,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:04 p.m., in room SR-428A, Russell Senate Office Building, Hon. Larry Pressler (chairman of the subcommittee) presiding.

Present: Senators Pressler, D'Amato, and Levin.

Staff present: Robert J. Dotchin, staff director; R. Michael Haynes, chief counsel; Robert M. Wilson, counsel; Tom Hohenthaner, professional staff member; and Tracy Crowley, hearing clerk.

STATEMENT OF HON. LARRY PRESSLER, A U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator PRESSLER. The Small Business Subcommittee on Family Farm will be in order.

I want to thank our witness, Mr. Pearlman from the Treasury, for being here.

Let me say that this is a followup to an earlier meeting we held looking into the issue of industrial revenue bonds especially as they affect small business where they are used to promote the development of jobs and the development of projects in our States. At our earlier hearing, we heard from witnesses who testified to the type of jobs that had been created in the past by such bonds. We also had some estimations of how much revenue the U.S. Federal Treasury lost or gained.

At that time, we wanted very much to have a representative of the Treasury here to give the Treasury's view, the White House view. Since that time, the President has announced his tax plan, and we are very glad that Mr. Pearlman is here because he speaks with unusual authority in this area of tax and in the area of the bonds.

There was considerable discussion at our earlier hearings about whether or not these types of bonds favor some businesses over some others, if they don't relocate businesses more than create businesses, or if they don't relocate jobs as much as they create them. On the other hand, it was pointed out that in many smaller communities, there isn't the source of capital, there isn't the source of investment that is available in some other industries and urban

areas, and the only way you can get business and job creation going is through some type of a bonding mechanism.

The President's proposal, as I understand it, and Mr. Pearlman will speak more eloquently to this than I, proposes to eliminate those bonds used for the development of private business but would retain the bonds that are used for municipal-type, public purposes. However, I may not understand that completely. So, we do look forward to Assistant Secretary of the Treasury for Tax Policy, Ronald Pearlman's testimony.

Let me place my statement in the record and say that there are several examples in my State, and we heard them earlier. Aberdeen, SD, a town of 25,937, has created 2,941 jobs through 35 IDB issues. Earlier we heard Cal Engel, executive director of the Aberdeen, SD Development Corp., explain what these IDB issues have meant to his community during the first day of these hearings. Watertown, SD, with a population of 15,632, has helped fund 12 projects and created 655 jobs through industrial development bonds. Madison saw 450 new jobs come to their community of 5,210 people through five issues, and Brandon, South Dakota issued three IDB's to help create 130 jobs in a town whose population is only 2,590.

So, many of these local officials believe that jobs have been created through this program. Now, the debate would be how much revenue was lost to the Federal Government, how much income tax was gained by these people working, and so forth.

Recently, in President Reagan's speech, he launched what I think is a laudable and important effort to reform this country's Tax Code. I certainly am for tax simplification. We all are. The question is what is to be included and what is not to be included. The ultimate in tax simplification would be a flat tax with no deductions or exemptions. That is not what has been proposed. Rather, what has been proposed is a modified flat tax which retains several exemptions and deductions.

The question before us is how would the IDB proposal affect the Nation's small business, State and local governments, job creation, and revenues to the Federal Treasury. I have frequently said I think the deficit is our No. 1 domestic problem. There was testimony during the first day of testimony in which some suggested IDB's lose revenue to the Federal Government. Others suggested that they increase revenue to the Federal Government by providing jobs and salaries on which people pay income taxes and stimulate economic activity.

With that, I will call upon Mr. Pearlman for his opening statement.

[The prepared statement of Senator Pressler follows:]

SMALL ISSUE INDUSTRIAL DEVELOPMENT BONDS
AS A SOURCE OF FINANCING FOR SMALL BUSINESS
OPENING STATEMENT BY SENATOR LARRY PRESSLER
BEFORE THE
SUBCOMMITTEE ON SMALL BUSINESS: FAMILY FARM
JUNE 11, 1985

I WOULD LIKE TO THANK ASSISTANT SECRETARY OF THE TREASURY FOR TAX POLICY RONALD PEARLMAN FOR BEING WITH US THIS AFTERNOON. THIS IS THE SECOND DAY OF HEARINGS IN WHICH WE ARE EXPLORING THE USEFULNESS OF TAX-EXEMPT PRIVATE PURPOSE SMALL ISSUE INDUSTRIAL DEVELOPMENT BONDS AS A FINANCING TOOL FOR SMALL BUSINESS.

DURING THE FIRST DAY OF HEARINGS, THIS SUBCOMMITTEE HEARD FROM SMALL BUSINESS INDIVIDUALS WHO HAVE BEEN AIDED BY IDB ISSUES, REPRESENTATIVES OF STATE AND LOCAL BOND ISSUING AUTHORITIES, AND BOND UNDERWRITERS. THE TESTIMONY PROVIDED A CLEAR PICTURE OF THE IMPORTANCE OF IDB FINANCING IN BRIDGING THE CREDIT GAP THAT SMALL BUSINESSES ACROSS THE COUNTRY CURRENTLY FACE. AS PREVIOUS HEARINGS BEFORE THIS SUBCOMMITTEE HAVE SHOWN, SMALLER BANKS IN RURAL STATES ARE CLOSELY TIED TO THE AGRICULTURAL ECONOMY AND ARE OFTEN UNABLE TO PROVIDE NECESSARY CREDIT TO SMALL BUSINESS. THROUGH THE USE OF IDB FINANCING, MANY JOBS ACROSS THE COUNTRY HAVE BEEN GENERATED AND OTHERS RETAINED. IN SHORT, TAX-EXEMPT IDBS ARE A PROVEN AND VALUABLE METHOD OF SPURRING ECONOMIC DEVELOPMENT.

COMMUNITIES IN MY HOME STATE OF SOUTH DAKOTA HAVE USED IDBS VERY EFFECTIVELY TO CREATE ADDITIONAL JOBS AND MOVE THEIR ECONOMIES AWAY FROM WHAT HISTORICALLY HAS BEEN AN ALMOST COMPLETE DEPENDENCE ON AGRICULTURE. WHILE AGRICULTURE IS, AND WILL REMAIN, THE BASE FOR OUR ECONOMY, OUR COMMUNITIES MUST DIVERSIFY. QUITE LITERALLY,

THE VERY SURVIVAL OF THESE SMALL TOWNS IS AT STAKE. TOWARD THIS END, ABERDEEN, SOUTH DAKOTA, A TOWN OF 25,937, HAS CREATED 2,941 JOBS THROUGH 35 IDB ISSUES. WE HEARD CAL ENGEL, EXECUTIVE VICE PRESIDENT OF THE ABERDEEN DEVELOPMENT CORPORATION, EXPLAIN WHAT THESE IDB ISSUES HAVE MEANT TO HIS COMMUNITY DURING THE FIRST DAY OF THESE HEARINGS. WATERTOWN, SOUTH DAKOTA, WITH A POPULATION OF 15,632, HAS HELPED FUND 12 PROJECTS AND CREATED 655 JOBS THROUGH IDBS; MADISON SAW 450 NEW JOBS COME TO THEIR COMMUNITY OF 6,210 THROUGH FIVE ISSUES; AND BRANDON ISSUED THREE IDBS TO HELP CREATE 130 JOBS IN A TOWN WHOSE POPULATION IS ONLY 2,590.

RECENTLY, IN A SPEECH TO THE NATION, PRESIDENT REAGAN LAUNCHED AN IMPORTANT AND LAUDABLE EFFORT TO REFORM THIS COUNTRY'S TAX CODE. DURING THIS SPEECH, THE PRESIDENT EMPHASIZED THE IMPORTANCE OF SMALL BUSINESS. IT WAS CORRECT FOR THE PRESIDENT TO NOTE THAT THE MAJORITY OF THE NEW JOBS CREATED IN RECENT YEARS CAME FROM THE SMALL BUSINESS SECTOR. I SHARE THE PRESIDENT'S HOPE THAT WE IN THIS COUNTRY ARE EMBARKING ON A NEW ERA OF PROGRESS--"THE AGE OF THE ENTREPRENEUR." HOWEVER, IT IS CRITICAL TO REMEMBER THAT THIS NEW AGE, AND THE ECONOMIC RECOVERY WHICH ACCOMPANIES IT, HAS NOT YET COME TO STATES LIKE SOUTH DAKOTA.

WHILE CONGRESS MUST TAKE SIGNIFICANT STEPS IN THE DIRECTION OF ELIMINATING CURRENT INEQUITIES IN OUR TAX CODE, IT MUST ALSO CONTINUE ITS EFFORTS TO REDUCE THE MASSIVE FEDERAL BUDGET DEFICIT. WE HAVE BEGUN THIS MOST DIFFICULT TASK, BUT NOT WITHOUT COST. SUCH AGENCIES AS THE SMALL BUSINESS ADMINISTRATION AND THE ECONOMIC DEVELOPMENT ADMINISTRATION WILL BE SUBSTANTIALLY CUT BACK. SUCH CUTS ARE VITAL IF WE ARE TO CONTINUE AND EXPAND THE CURRENT ECONOMIC RECOVERY. HOWEVER, THEY DO IMPACT ON SMALL BUSINESS. IT IS

TRUE THAT DEFICIT REDUCTION WILL REDUCE INTEREST RATES AND THIS WILL HELP SMALL BUSINESS. HOWEVER, THE REALITY IS THAT, WHILE THE SITUATION HAS IMPROVED, INTEREST RATES REMAIN PROHIBITIVELY HIGH, AT LEAST IN MY STATE.

THE POINT IS, THROUGH OUR NECESSARY EFFORTS AT DEFICIT REDUCTION, WE HAVE SCALED BACK FEDERAL ASSISTANCE TO SMALL BUSINESS. CAN WE AFFORD TO ELIMINATE ONE OF THE FEW REMAINING SOURCES OF LONG-TERM FINANCING FOR SMALL BUSINESS? GRANTED, THERE HAVE BEEN ABUSES OF THE TAX-EXEMPTION FOR IDBS IN THE PAST, BUT CONGRESS HAS GREATLY REDUCED THE CHANCES FOR ABUSE IN RECENT LEGISLATION. AS A RESULT OF THESE REFORMS, STATE AND LOCAL GOVERNMENTS HAVE OPERATED VERY SUCCESSFUL IDB PROGRAMS TO FILL THE CREDIT VOID PRESENT IN DEPRESSED ECONOMIES IN STATES LIKE SOUTH DAKOTA.

I AM QUITE CERTAIN MR. PEARLMAN WILL PAINT A CONSIDERABLY DIFFERENT PICTURE THAN THAT CREATED BY OUR FIRST THREE PANELS OF WITNESSES, AND THIS IS HOPEFUL. DURING THIS SECOND DAY OF HEARINGS, I HOPE WE CAN ALL COME TO A BETTER UNDERSTANDING OF THE IMPORTANCE OF TAX-EXEMPT IDB FINANCING. DIALOGUE OF THE KIND IN WHICH WE WILL ENGAGE TODAY WILL PLAY AN IMPORTANT ROLE IN REACHING THE DIFFICULT DECISIONS WHICH WE WILL SOON BE CALLED UPON TO MAKE.

STATEMENT OF HON. RONALD A. PEARLMAN, ASSISTANT SECRETARY FOR TAX POLICY, TREASURY DEPARTMENT

Mr. PEARLMAN. Thank you, Senator. Please excuse my voice; I have partially lost it today.

Senator PRESSLER. Yes; you were before the Finance Committee, were you not?

Mr. PEARLMAN. I accompanied the Secretary this morning. I didn't have to do very much talking this morning, but for some reason, it left me.

I do appreciate the chance of being here this afternoon. We have submitted a statement for the record. What I would like to do is simply review some of the highlights of the statement, and then I will, if I can, try to answer your questions.

We have at Treasury, obviously, a long history of dealing with the subject of tax- exempt obligations. What I would like to do this afternoon is discuss with you briefly our concerns about the growth in the use of tax-exempt bonds, particularly the nongovernmental obligations, the reason we think these nongovernmental uses are not desirable and the reasons that the many past legislative efforts to limit nongovernmental bonds has not really solved the problem caused by the growth of these bonds, and then I will try to briefly describe the proposals that the President has put forward in connection with tax-exempt obligations.

The history tells us that the original purpose of the Federal tax exemption for interest earned on obligations of State and local government was to allow these governments to finance their needs at a reduced interest cost. However, since 1979, over one-half of all long-term tax exempt bonds that have been issued have been used to provide proceeds for the direct benefit of private businesses and certain tax exempt organizations or individuals rather than to provide proceeds for use by State and local governments and their political subdivisions.

We use the distinction governmental and nongovernmental bonds. In discussing these private activities, I will refer to them as nongovernmental bonds.

I think the chart, chart 1, that we attached to the testimony is instructive because it shows the dramatic increase in the use of nongovernmental obligations. As you can see, the growth in governmental obligations—by this chart, as you can see, the growth in the component of the various kinds of nongovernmental obligations, but the growth in small issue IDB's has been dramatic during the period 1975 through 1983.

Senator PRESSLER. Now, the one that grew the most is the other nongovernmental bonds.

Mr. PEARLMAN. Yes.

Senator PRESSLER. Where are they?

Mr. PEARLMAN. Well, that includes the hospitals and veterans obligations, student loan bonds.

Senator PRESSLER. And the mortgage subsidy bonds are for what?

Mr. PEARLMAN. They are the housing bonds.

Senator PRESSLER. And the small issue IDB's are the ones that go to private businesses?

Mr. PEARLMAN. Correct.

Senator PRESSLER. OK. And they were almost nonexistent before 1975?

Mr. PEARLMAN. They were almost nonexistent, but indeed if you look at 1975, the total number of all nongovernmental bonds was very, very small. They totaled about $9 billion in 1975. I think one of the most significant features is to compare the relationship between nongovernmental and the governmental bonds. In 1975, nongovernmental bonds accounted for 29 percent of all long-term tax exempt bonds. In 1983, as you have already noted, the growth in nongovernmental bonds had risen from $9 billion to $57 billion. However, again, I think one of the most significant pieces of information is that they then accounted for 61 percent of the entire long-term tax exempt bond market, so they had clearly become the predominant force in a market which was certainly designed over the years to enable governments to finance their needs on a tax favored basis.

The volume of nongovernmental bonds issued in 1983 was more than six times the volume of those issued in 1975, only 8 years earlier. In table 1 that follows the chart, we break down—it really responds to a question that you asked me earlier, but it does it in more detail, Mr. Chairman—it breaks down the component of the nongovernmental bonds into various kinds of housing bonds, mortgage subsidy bonds, the student loans. All the bonds are issued there by volume amount.

Senator PRESSLER. These are States issuing housing bonds. That would fall under, for example, one of the three categories, either single family, multifamily or the veterans.

Mr. PEARLMAN. That is correct.

Senator PRESSLER. What would the veterans general obligation bonds be for, for example?

Mr. PEARLMAN. Those are a housing bond issued by some States, and all of the housing obligations are ones which essentially—particularly it is true of the single family mortgage subsidy bond—simply to be able to provide a low interest rate or favorable interest rate loan to home buyers. Some States have a program designed for veterans specifically and they are categorized as veterans general obligation bonds.

Senator PRESSLER. Under the Reagan tax plan, then, housing bonds also would become taxable?

Mr. PEARLMAN. That is correct.

One of the things I just might mention here as we look at the reference to veterans general obligations bonds, maybe even ourselves, we fall into the careless pattern of referring in the President's proposals to general obligation bonds and other bonds. Really, the distinction we draw is not a general obligation distinction, because States do in fact use general obligation bonds for private purposes.

As I indicated, the growth began in 1975 but really started in earnest in the late 1970's. For example, small issue IDB's began growing rapidly, particularly in 1978 and 1979. Small issue IDB s in 1975 totaled $1.3 billion, and in 1983, grew by a factor of more than 11 to $14.6 billion. Then came pollution control IDB's, multifamily rental housing IDB's, private exempt entity bonds which have been used principally by tax exempt organizations for the construction

of hospitals and for university construction, mortgage subsidy bonds for owner-occupied homes. That is an area which has grown very dramatically from $1 billion in 1977 to $11 billion in 1983. More recently, growth in the student loan bond area, we had $100 million of student loan bonds in 1976 and they have grown to $3.3 billion in 1983.

So, in all these areas, you can see rather dramatic growth.

Senator PRESSLER. I want to be sure I understand this. Are those student loan bonds used to finance State loans separate from the Federal loan program, or are they the Federal loan program?

Mr. PEARLMAN. No, they are State loan programs whereby the State will go out and issue a tax exempt obligation and then use the proceeds to loan funds to individuals. There are some federally guaranteed programs under that student loan, so I guess you could say it is part of each.

The growth of nongovernmental bonds can be attributed, we think, to three principal factors. First, and I think, probably the most important, is the rise in interest rates in the 1970's which forced borrowers to look for lower cost methods of financing, and they found the tax-exempt market an attractive alternative. As a result, the tax-exempt market did perform the function of providing lower rate loans.

Second, more governments began issuing tax-exempt bonds for what, at least traditionally, were not viewed as nongovernmental activities, and they did that in large part because they saw their neighboring jurisdictions doing so. In order to be competitive, one jurisdiction determined it had to issue these obligations if another one did, and now we have virtually everyone issuing the same obligation.

Finally, some of the increase in nongovernmental obligations may be attributable to reductions in direct expenditure for loan guarantee programs by the Federal Government. Often, we hear people tell us that the increase in some of these categories is a direct result of the reduction in the direct programs.

There are a number of reasons why we think the use of nongovernmental obligations is undesirable and therefore should be prohibited. First, the exemption from Federal income tax of interest on State and local obligations exists as a matter of comity between the Federal Government and State and local governments. This exemption is intended to lower the cost to State and local governments of financing governmental facilities such as schools, roads, sewers, and so forth.

The enormous growth of nongovernmental bonds has increased the supply of tax-exempt obligations which, in turn, has exerted upward pressure on tax-exempt interest rates so that we think the cost to State and local governments in financing its direct governmental needs has increased as a result of the increase in the portion of the market that is taken by the nongovernmental obligation. That is the reason that I mentioned earlier that I think the statistics that indicate the extent to which nongovernmental obligations comprise a portion of the market are so important.

The second reason——

Senator PRESSLER. Excuse me, I want to be sure that I understand that. The reason is that the tax-exemption has forced interest rates up slightly?

Mr. PEARLMAN. As the supply of those obligations has increased, obviously, it requires a way—there is presumably some limit on the demand for tax-exempt obligations, so as the supply is increased, as it has so dramatically over the last decade, then it simply puts State and local governments in competition with private activities when it goes out into that market.

Senator PRESSLER. I see. They are competing for the same market. Have the interest rates relative to the prime gone up from, let's say, 1975, the early days of this program. I want to say from the early days of this program, but from the chart, in 1975, it looks like they were very low. This program has been going on for much longer than that.

Mr. PEARLMAN. Yes, we saw IDB's back in the 1960's, but the numbers were just much, much lower in those early years.

Senator PRESSLER. OK, but the point is that as the activities have increased. Now, originally, did the prime rate of interest and the IDB rate of interest have a wider spread than after they became more popular? Have interest rates gone up, relatively speaking, on IDB's?

Mr. PEARLMAN. I am advised that the spread has narrowed, but the point, I think, that I am trying to make would occur even if the prime or, let's say, the Federal obligation rate remained constant, it is simply that when you go from a portion of the supply—I'll use my 29 percent number back in 1975—to 61 percent in 1983, in a market where presumably the demand is more or less constant although there may be some change in the demand, clearly the competition is going to force a higher interest rate. In fact, the interest rates have narrowed. The tax-exempt rate and the prime rate have narrowed, but that is not solely attributable to this particular factor. There are a number of factors which influence that.

The second reason that I wanted to suggest as to why we think nongovernmental obligations are undesirable is the revenue loss issue that you raised, Mr. Chairman, in your opening statement, and the fact that those obligations clearly attract capital away from alternative investments the return on which would be taxable.

One of the things that we find as we talk to people about tax-exempt obligations is they tend to think of the revenue loss in the year in which the obligation is issued and tend to forget that, typically, these obligations are very long-term obligations, often going out 20 to 30 years. Those revenue losses are going to continue for the entire duration of those obligations. So, what we have is a cumulative effect of a number of years of issuing nongovernmental obligations. As a consequence, what we have seen over the past few years is a dramatic increase in the revenue impact as those bonds are piled one on top of another.

Not only to nongovernmental bonds increase the entire volume of tax exempts, they increase this revenue loss. Nongovernmental bonds will reduce tax revenues by nearly $10 billion in this fiscal year. The loss from small issue IDB's alone in 1983 will be $450 million, but that will eventually total $8 billion over the entire

period these bonds are outstanding. If this lost revenue is to be made up, then it means tax rates applicable to other income will have to be maintained at higher levels than they otherwise would be during the period the bonds are outstanding. We know that higher tax rates tend to slow economic growth. The desire to reduce marginal tax rates is a major thrust of the President's proposals, and it is clearly one of the reasons that we think we simply must deal with nongovernmental obligations in the fundamental tax reform effort.

The third area that we look at in evaluating the appropriate role of nongovernmental obligations is the fact that, and I think it is generally acknowledged, that tax-exempt financing is simply an indirect subsidy by the Federal Government and maybe by the State government also if it provides tax exemption to private business. The industrial development bond, the small issue IDB, for example is a good example of that. It simply makes available low cost funds to private business. The issuance of those bonds results in a subsidy equal to the tax revenue lost as a result of the nontaxable status of the interest received from these bonds.

Even if we determine that a particular type of private beneficiary of tax-exempt financing is intended to receive a Federal subsidy, and that Federal subsidy is desirable, then nongovernmental tax-exempt financing is not a very efficient way. Indeed, it is an inefficient means of providing that subsidy. Studies show that for every $2 of interest cost savings to the party who uses the tax exempt bond proceeds, the Federal Government usually forgoes more than $3 of tax revenues. That is, at least one-third of the benefit of tax-exempt financing generally is captured by the financial intermediaries and the investors who hold the obligations.

So, the combination of the third and the fourth points that I include in our statement really are, if the Federal Government wants to provide a subsidy—well, let me back up and say it slightly differently. We doubt that the Federal Government would provide the subsidy in as an across the board broad area if it were really going through the appropriations process as the tax-exempt financing vehicle has permitted. If it were to decide to provide a subsidy in a particular area, it probably could be provided on a much more efficient basis through a direct subsidy program.

Often, people say to us, well, a Direct Subsidy Program requires more bureaucracy and we want to try to get government out of the lives of people. There is no reason that a Direct Subsidy Program, that is, one that writes checks to people for doing whatever is viewed as desirable, need involve any more governmental involvement than the Tax Exempt Bond Program under current law which includes a variety of standards that are imposed on all kinds of activities before the tax-exempt privilege is provided.

Senator PRESSLER. What kind of investors invest in, I guess I have always called them, municipal bonds or State and local bonds? Of course, it depends on which State and so forth, but you mentioned high bracket investors. Who invests in most of these bonds?

Mr. PEARLMAN. You are correct; they are high income taxpayers, typically. Obviously, the tax-exempt privilege is most beneficial to the person who is in the highest tax bracket. So, on the individual

side, it would not be surprising that you would find tax-exempt obligations being purchased by the highest bracket taxpayers, the 50 percent.

Senator PRESSLER. Is that true? Has there been a study of that?

Mr. PEARLMAN. We can show you data to show you that the concentration of tax-exempt obligations is in the higher tax brackets. There is one other area that I should mention, and that is with respect to financial institutions. There is a major investment in tax exempts by certain financial institutions who, by reason of the tax laws, have benefits available to them that make tax-exempt obligations a particularly desirable form of investment.

I will mention one of them, and that is a provision that permits a bank to borrow and deduct the interest on the borrowing and then reinvest those borrowed funds in tax-exempt obligations. Individuals cannot do that. There is a specific statutory restriction against that, but that statutory restriction is not applicable to banks, so you see substantial investments in tax-exempt obligations by banks, and you do see it with other businesses. Another example is the property and casualty insurance companies which have traditionally heavily invested in tax exempts, again because of the particular tax advantages they gain from that.

The final point that I would like to mention and that we should not lose sight of is the—and, again, I want to try to relate it to the President's tax reform proposals—and that is the distortive effect that nongovernmental obligations have on the economy because they provide a significant tax benefit to those people who have the good fortune of being able to finance through the tax-exempt sector. That provides those businesses with an advantage over their competitors who are forced to raise capital in the taxable market, and it is that kind of distortion in the economy which we think is both anticompetitive, is not conducive to long-term growth in the economy, and it is one of the fundamental objectives of the President's proposals to try to remove as much of that distortion that comes through the tax system from the tax system as we reasonably and possibly can.

Now, I am not going to go into all of the detail of all of the efforts that have been made over the years by the Congress to limit the use of nongovernmental obligations. We discuss a number of those in our statement, but let me summarize those by simply saying they have really plugged holes in the dike. As Congress has perceived areas of abuse and as Congress has been concerned, as it was in 1984, with the dramatic growth of nongovernmental obligations, it has sought to react to that, but it has done it in a happenstance way. Indeed, I would submit that there is more distortion in the economy today because of the kind of piecemeal legislation that we have sought to utilize over the past years in dealing with nongovernmental obligations.

The methods used in the past to restrict tax exempt obligations has failed to address the fundamental problems raised by nongovernmental bonds. Although the efforts may have reduced the revenue loss that would have resulted if no limitations were in place, they did nothing to improve the efficiency of the subsidy, and the high volume of nongovernmental bonds has resulted in still higher financing costs for governmental projects.

Therefore, we believe it is appropriate, as part of the President's tax reform proposal, to consider a more fundamental change in this area of the law.

In general, the President's proposal, as you mentioned in your opening statement, Mr. Chairman, would deny tax exemption to any obligation issued by a State or local government where more than one percent of the proceeds were used, directly or indirectly, by any nongovernmental person. In essence, this proposal would prevent the issuance of tax exempt bonds to finance any facility other than facilities to be owned and operated by the State or local governmental unit. thus, roads, parks, government office buildings, and other traditional governmental functions would continue to be financed by tax exempt bonds, but bonds could no longer be issued on a tax exempt basis to finance facilities intended for private use.

Senator PRESSLER. What page are you on? I have lost you.

Mr. PEARLMAN. Well, I am reading from a different version than you are.

Senator PRESSLER. OK, that is fine.

Mr. PEARLMAN. I am at page 6, Mr. Chairman.

Under any given set of tax rates, elimination of nongovernmental bonds would cause the spread between long-term tax exempt and long-term taxable rates to increase due to a lower volume of tax exempt obligations. And, of course, the proposal will increase financing costs for non-governmental persons currently receiving tax exempt financing, including eligible small businesses and farmers. Such increase, however, would simply remove a tax created distortion in how the market allocates capital among all nongovernmental persons.

For the reasons discussed, Mr. Chairman, the Treasury Department strongly favors the elimination of tax exemption for nongovernmental obligations. We regard the elimination of this Federal subsidy program as a key part of the President's tax reform proposal.

This concludes my prepared remarks. I will be happy, if I can, to try to answer your questions.

[The prepared statement of Mr. Pearlman follows:]

FOR RELEASE UPON DELIVERY
Expected at 2:00 p.m., E.D.T.
Tuesday, June 11, 1985

STATEMENT OF
THE HONORABLE RONALD A. PEARLMAN
ASSISTANT SECRETARY (TAX POLICY)
DEPARTMENT OF THE TREASURY
BEFORE THE
SUBCOMMITTEE ON FAMILY FARMS
OF THE
SENATE SMALL BUSINESS COMMITTEE

Mr. Chairman and Members of the Subcommittee:

I am pleased to have the opportunity to present the views of the Treasury Department on the use of tax-exempt industrial development bonds ("IDBs") as a source of capital for small businesses. I will discuss our concerns about the growth in the use of tax-exempt bonds for nongovernmental purposes, the reasons we believe these uses are undesirable, the reasons past limitations placed on nongovernmental bonds have not fully solved the problems caused by the growth of these bonds, and the method by which we believe the use of tax-exempt bonds for such purposes should be prevented.

The Growth of Tax-Exempt Financing for Nongovernmental Purposes

The original purpose of the federal income tax exemption for interest earned on obligations of state and local governments was to allow those governments to finance their governmental needs at a reduced interest cost. Since 1979, however, over one-half of all long-term tax-exempt bonds issued have been to provide proceeds for the direct benefit of private businesses, certain tax-exempt organizations, or individuals, rather than to provide proceeds for use by states and local governments and their political subdivisions. I will refer to these tax-exempt bonds, in which the governmental issuer is only a conduit for private borrowing, as "nongovernmental bonds."

Chart 1 shows the volume of long-term tax-exempt bonds issued in the years 1975 through 1983. Nongovernmental bonds issued in 1975 totalled only $9 billion, accounting for 29 percent of the long-term tax-exempt bond market. In 1983, nongovernmental bonds totalled $57 billion and accounted for 61 percent of the long-term tax-exempt bonds issued in that year. Thus, the volume of nongovernmental bonds issued in 1983 was more than six times the volume of those bonds issued in 1975--only eight years earlier.

The volume of different types of nongovernmental tax-exempt financing in recent years is shown in Table 1. The table shows the following:

- Small-issue IDBs began growing rapidly in 1978 and 1979. Small-issue IDBs issued in 1975 totalled $1.3 billion, growing by a factor of more than 11, to $14.6 billion issued in 1983.

- Pollution control IDBs, multi-family rental housing IDBs, and private exempt entity (hospital and university) bonds were the main nongovernmental uses of tax-exempt financing in the early 1970s. Their use has grown steadily from $4.8 billion in 1975 to $21.5 billion in 1983.

- Mortgage subsidy bonds ("MSBs") for owner-occupied homes became widely used in 1977. MSBs grew from $1 billion in 1977 to $11 billion in 1983.

- Rapid recent growth has occurred in the issuance of student loan bonds, which grew from $0.1 billion in 1976 to $3.3 billion in 1983.

The growth of nongovernmental bonds can be attributed to three principal factors. First, as interest rates rose in the late 1970s, borrowers searched for lower cost financing tools, and they tapped tax-exempt financing as a method of reducing their interest costs. Even with today's lower interest rates, however, tax-exempt bonds continue to offer a clear cost advantage to the borrower. Thus, borrowers who learned to use tax-exempt financing during times of high interest rates are not abandoning it now in times of lower rates.

Second, more governments began issuing tax-exempt bonds for nongovernmental activities as they observed their neighboring jurisdictions doing so. This competition between states for economic development eventually forced all states and most governmental units to begin offering nongovernmental bonds. States and other governmental units had little to lose from these offerings because tax-exempt financing for private businesses and individuals involved no liability on the part of the issuer and no cost to the issuer.

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Finally, some of the increase in nongovernmental bonds may be attributable to reductions in direct expenditures or loan guarantees by the federal government. The growth in private hospital bond volume in the middle 1970s probably was partly due to the cutback of the Hill-Burton program, which provided federal funds for hospital construction. Similarly, the recent blossoming of student loan bonds is likely due in part to the tightening of income eligibility requirements for federally guaranteed student loans. Thus, tax-exempt financing has been an indirect means of obtaining federal subsidies, without explicit congressional approval and sometimes in direct contravention of federal budget policies that gave rise to cuts in direct expenditures or loan guarantees.

Reasons Use of Nongovernmental Tax-Exempt Bonds is Undesirable

There are a number of reasons why the use of nongovernmental bonds is undesirable and therefore should be prohibited. First, the exemption from federal income tax of interest on state and local government obligations exists as a matter of comity between the federal government and state and local governments. This tax exemption is intended to lower the cost to state and local governments of financing governmental facilities, such as schools, roads, and sewers. The enormous growth of nongovernmental bonds has increased the supply of tax-exempt obligations, thereby exerting upward pressure on tax-exempt interest rates. Econometric studies that have estimated the effect of an increase in the supply of tax-exempt bonds on tax-exempt yields, holding all other factors constant, have found that tax-exempt yields increase when supply increases. Higher tax-exempt interest rates in turn increase the costs of state and local governments in financing governmental projects and thus may cause reductions in services or increases in state and local taxes. Moreover, these increased costs are borne by all state and local governments that issue tax-exempt bonds--not only those issuing nongovernmental bonds.

Second, the issuance of nongovernmental bonds is undesirable because tax-exempt bonds result in substantial present and future revenue losses by attracting capital away from alternative investments, the return on which would be taxable. Tax-exempt bonds produce a revenue loss not only in the year of their issuance, but also in each year that they remain outstanding. Because nongovernmental bonds increase the volume of tax-exempt bonds, they increase this revenue loss. Nongovernmental bonds will reduce tax revenues by nearly $10 billion in this fiscal year. The revenue loss from small issue IDBs issued in 1983 alone will be $450 million in this fiscal year and will eventually total $8 billion over the entire period these bonds are outstanding. If this lost revenue is to be made up, income tax rates applicable to nonexempt income must be maintained at higher levels than they otherwise would be during the period while the bonds are outstanding. These higher tax rates tend to slow economic growth now and far into the future.

Third, nongovernmental bonds are undesirable because tax-exempt financing is typically used by private businesses and individuals who would not receive direct assistance from either the federal or state governments. One example is the use of small-issue IDBs to make lower cost funds available to private businesses. The issuance of such bonds for these purposes results in a federal subsidy equal to the tax revenue lost as a result of the nontaxable status of the interest received from these bonds. The federal government cannot afford to provide such indiscrimate subsidies in these times of budgetary constraint. In this regard, tax-exempt financing in many cases is being used as a substitute for direct federal subsidies, direct loans, and loan guarantees, often after direct subsidy and credit programs have been eliminated or curtailed. Much of the savings to the federal government from reducing direct expenditures is lost when indirect federal subsidies are obtained through tax-exempt financing.

Fourth, even if a particular type of private beneficiary of tax-exempt bond financing is intended to receive a federal subsidy, nongovernmental tax-exempt financing is an inherently inefficient means of providing such subsidy. This is true because the interest cost savings to the borrower intended to be subsidized typically is far less than the revenue loss to the federal government resulting from the lender's not being taxed on the interest received from the bonds.. Studies show that for every $2 of interest cost savings to the party who uses the tax-exempt bond proceeds, the federal government usually foregoes more than $3 of tax revenues. In other words, at least one-third of the benefit of tax-exempt financing generally is captured by financial intermediaries and high-bracket investors who hold the tax-exempt bonds. A direct subsidy program could provide the same subsidy to the intended beneficiary at a lower cost to the federal government or a larger subsidy to the intended beneficiary at the same cost to the federal government.

Finally, nongovernmental bonds are undesirable because they have anti-competitive and distortive effects on the economy. Activities receiving tax-exempt financing have a significant advantage over their competitors, who must raise capital with higher-cost taxable obligations. Yet, the availability of tax-exempt financing for nongovernmental persons depends upon which jurisdictions have the necessary programs in place and upon the ability of persons to navigate the various legal and regulatory procedures of state and local law. These factors have little relation to the value or efficiency of particular activities and ought not to influence the allocation of capital among sectors of the economy.

Past Approaches to Limit the Use of Tax-Exempt Financing for Nongovernmental Purposes

Congress has tried with varying success to place limitations on the use of nongovernmental bonds. One approach has been to limit tax-exempt financing to specified activities that are

believed to serve a public purpose or to particular beneficiaries who are thought to be worthy of a subsidy. This approach was followed in the Tax Equity and Fiscal Responsibility Act of 1982 ("TEFRA"), through which Congress prohibited the use of small-issue IDBs for retail food and beverage service facilities, automobile sales or service facilities, and recreation or entertainment facilities. This list of prohibited facilities was lengthened significantly by the Tax Reform Act of 1984 (the "1984 Act").

Another approach to limiting the growth of nongovernmental bonds is to require that issuers exercise greater responsibility in determining whether a project financed with tax-exempt bonds serves a significant local purpose. Congress adopted such a restriction in TEFRA by requiring that all IDBs be approved by a voter referendum or by an elected official following a public hearing.

A third approach that has been tried in the past is to reduce the total tax incentives available to users and issuers of nongovernmental tax-exempt bonds. In TEFRA, Congress reduced the benefit of tax-exempt financing by requiring certain IDB-financed property to be depreciated on a straight-line basis. Furthermore, in the 1984 Act Congress limited the arbitrage profit that can be earned on certain IDBs by requiring the rebate of such earnings to the United States.

Finally, in the 1984 Act Congress adopted a state-by-state volume cap on student loan bonds and most IDBs. This volume cap limits the dollar amount of certain types of bonds that may be issued in any year.

None of these restrictions is the optimal solution to the problems created by nongovernmental bonds, however. The state-by-state volume cap limits the total amount of the federal subsidy made available to certain nongovernmental persons, but it does not eliminate the subsidy nor does it eliminate the other undesirable effects of nongovernmental bonds. Indeed, there is currently no volume limitation on tax-exempt financing for Section 501(c)(3) organizations, and it is the category of nongovernmental bonds that grew the most since 1981. Moreover, the volume cap does not apply to multi-family rental housing IDBs.

The methods used in the past to restrict tax-exempt bonds also fail to address the fundamental problems raised by nongovernmental bonds. Although these efforts may have reduced the revenue loss that would have resulted if no limitations were in place, they did nothing to improve the efficiency of the subsidy, and the high volume of nongovernmental bonds has resulted in still higher financing costs for governmental projects. In fact, by drawing arbitrary lines between projects that qualify and those that do not, certain of these methods may actually exacerbate the distortive effects that nongovernmental bonds have on the economy.

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Therefore, we believe it is appropriate, as part of the President's tax reform proposal, to consider a more fundamental change in this area of the law.

The President's Tax Reform Proposal

In general, the President's proposal would deny tax exemption to any obligation issued by a state or local government where more than one percent of the proceeds were used directly or indirectly by any nongovernmental person. In essence, this proposal would prevent the issuance of tax-exempt bonds to finance any facility other than facilities to be owned and operated by the state or local governmental unit. Thus, roads, parks, and government office buildings could continue to be financed by tax-exempt bonds, but bonds could no longer be issued on a tax-exempt basis to finance facilities intended for private use.

Under any given set of tax rates, elimination of nongovernmental bonds would cause the spread between long-term tax-exempt and long-term taxable interest rates to increase, due to a lower volume of tax-exempt obligations. Thus the value of the federal subsidy provided to governmental activities financed with tax-exempt bonds would increase. This increased spread results because there will be a large reduction in the supply of new tax-exempt bonds and, due to other parts of the President's proposal, there will be cutbacks in alternative tax shelters and a greater demand by property and casualty insurance companies for tax-exempt bonds. This increase in the spread between long-term tax-exempt and long-term taxable interest rates will occur despite the lower marginal tax rates and changes in the ability of banks to deduct the costs of borrowings to carry tax-exempt bonds, which are also part of the President's proposal.

The proposal would, of course, increase financing costs for nongovernmental persons currently receiving tax-exempt financing, including eligible small businesses and farmers. Such increase, however, would simply remove a tax-created distortion in how the market allocates capital among all nongovernmental persons. Moreover, the undesirable effects of providing a federal subsidy through nongovernmental bonds apply with equal force to bonds issued for small businesses and farmers. During this time of fiscal constraint, inefficient, economically distortive, and ill-targeted tax expenditures of this type should be eliminated.

Conclusion

For the reasons discussed above, the Treasury Department strongly favors the elimination of tax-exemption for nongovernmental bonds. We regard the elimination of this federal subsidy program as a key part of the President's tax reform proposal.

This concludes my prepared remarks. I would be happy to respond to your questions.

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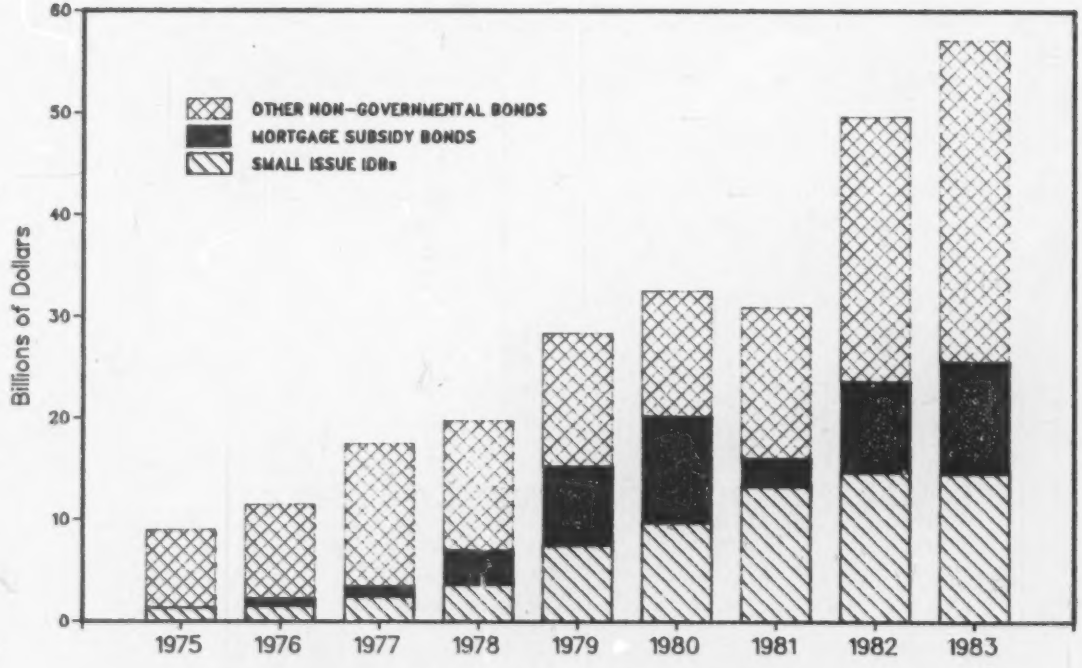
CHART 1
Long Term Tax–Exempt Bond Issues
for Private Purposes – 1975 to 1983



Office of Tax Analysis, Department of the Treasury, June 11, 1985

Table 1

Volume of Long-Term Tax-Exempt Bonds by Type of Activity, 1975-1983

(In billions of dollars)

	Calendar Years								
	1975	1976	1977	1978	1979	1980	1981	1982	1983
Total issues, long-term tax exempts 1/	30.5	35.0	46.9	49.1	48.4	54.5	55.1	84.9	93.3
Nongovernmental tax exempts	8.9	11.4	17.4	19.7	28.1	32.5	30.9	49.6	57.1
Housing bonds	1.4	2.7	4.4	6.9	12.1	14.0	4.8	14.6	17.0
Single-family mortgage subsidy bonds	*	0.7	1.0	3.4	7.8	10.5	2.8	9.0	11.0
Multi-family rental housing bonds	0.9	1.4	2.9	2.5	2.7	2.2	1.1	5.1	5.3
Veterans general obligation bonds	0.6	0.6	0.6	1.2	1.6	1.3	0.9	0.5	0.7
Private exempt entity bonds 2/	1.8	2.5	4.3	2.9	3.2	3.3	4.7	8.5	11.7
Student loan bonds	*	0.1	0.1	0.3	0.6	0.5	1.1	1.8	3.3
Pollution control industrial development bonds	2.1	2.1	3.0	2.8	2.5	2.5	4.3	5.9	4.5
Small-issue industrial development bonds	1.3	1.5	2.4	3.6	7.5	9.7	13.3	14.7	14.6
Other industrial development bonds 3/	2.3	2.5	3.2	3.2	2.2	2.5	2.7	4.1	6.0
Other tax-exempt bonds 4/	21.6	23.6	29.5	29.3	20.3	22.0	24.2	35.3	36.2

Office of the Secretary of the Treasury

June 11, 1985

Note: Totals may not add due to rounding.

* $50 million or less.

1/ Total reported volume from Credit Markets (formerly the Bond Buyer) adjusted for privately placed small-issue IDBs.

2/ Private-exempt entity bonds are obligations of Internal Revenue Code Section 501(c)(3) organizations such as private nonprofit hospitals and educational facilities.

3/ Other IDBs include obligations for private businesses that qualify for tax-exempt activities, such as sewage disposal, airports, and docks.

4/ Some of these may be nongovernmental bonds.

Senator PRESSLER. Thank you.

My colleague, Senator Levin, has arrived. Do you have an opening statement, Senator Levin?

Senator LEVIN. I don't.

Senator PRESSLER. I have some questions here. I will try to use roughly the 10-minute rule. I will ask a few, and then we go over to you, and then I will probably have some more.

Senator LEVIN. That is fine, Mr. Chairman.

Senator PRESSLER. With the restrictions imposed on the use of the small issue IDB's by the Tax Reform Act of 1984 such as the $40 million limitation on the amount of bonds that any one company may have outstanding, it seems to me that the concern that large corporations rather than small businesses primarily benefited from the small issue program has been eliminated. Weren't these reforms sufficient to ensure that only small businesses will continue to have access to IDB financing under this program?

Mr. PEARLMAN. Well, let me comment on two bases. First, $40 million sounded like a fairly small number last year, when we were talking about corporations that were issuing hundreds of millions of dollars of obligations, but $40 million isn't a very small number when you start multiplying it out. Businesses that issue obligations to the tune of $40 million, I think, are a far cry from what most of us would view as small business.

I would go on to say, however, that the President's proposals are designed to do something much more fundamental than simply say let's limit the benefit of tax exemption to a certain class of the economy. They are intended to say let's get the financing of business, large or small, back on an even keel so that all business, whether it is large business or small business, whether it is small business in one State versus another State, all business can compete equally for funds, and that tax exemption that has been in the Internal Revenue Code for years for the benefit of State and local governments really should not play a role in providing financing for small business.

Senator PRESSLER. You seem to assume in your proposal to eliminate small issue IDB's that small businesses are on an equal footing with large businesses in their access to capital. I know in 1968, the Congress specifically created the small issue exemption in order to promote local economic development and job creation. Are you saying that when Congress created the small issue exemption it was wrong in doing so?

Mr. PEARLMAN. I would describe what Congress did in 1968 was not the creation of a small issue exemption in order to encourage small business. I think it was the beginning of the effort to cut back tax exempt obligations. Prior to 1968, there was no restriction on those obligations. So, this was a step by Congress to say if we are going to provide this exemption, it should be restricted.

I think the history between 1968 and 1984 is a good commentary on the fact that what Congress did in 1968 probably wasn't enough, because what we saw was that if Congress really did intend to limit the tax exemption to so-called small issues with the idea that it would be available to small businesses, that is not what happened at all. We saw a mushroom of these obligations in all kinds of economic activity, large business as well as small.

I think, in retrospect, yes, I think it was a mistake for Congress not to take bolder action in the area of industrial development bonds at an earlier point in time. I think it would have been much less painful if Congress, back in the 1960's, when this phenomenon first began gaining favor, to take the issue on head-on, take tax exempt obligations back to where they had been for years in this country, and that is to permit State and local governments to finance their activities. I think had business not gotten used to the idea of having another vehicle to look to for finance, maybe the 1984 legislative process wouldn't have been quite as painful as it turned out to be.

Senator PRESSLER. In areas of the country where these bonds have been helpful in creating jobs, at least according to the testimony we heard earlier, what would replace them?

Mr. PEARLMAN. First of all, let me just dispute the fact that small issue IDBs have helped one part of the country over another. If a municipality in South Dakota has an ability to issue a small issue IDB, so do all your neighboring States. So, as a practical matter, States have become so competitive that what we have really done is simply made a lower cost financing available to everyone.

The real issue, it seems to me, is are you going to have an overall adverse economic effect on the country from removing the availability of tax exemption from private business? We are not aware of any data to that effect, that is, that business will not be able to finance—the cost of financing may be higher—or that jobs overall are going to be lost or, to put it another way, the GNP will go down as a result of not having tax exempt financing available. I don't think there is any data to support that.

Senator PRESSLER. Let me ask you this, then. We had these various witnesses here from small businesses, not only in South Dakota, but in other States. They believed that jobs were created and that revenue was created and that the revenue the Federal Government loses on these bonds is made up in local income taxes paid. Are you saying that these people are wrong?

Mr. PEARLMAN. I obviously can't say they are wrong. I didn't hear them; I don't know what they said. But, typically, when we hear that, what we hear is someone coming from a locality, and that person will say to us, in my home town we were able to go to the bank and get a tax exempt obligation, and we were able to build a factory and employ so many people. What we have a responsibility of looking at is what is the economic effect of having that kind of program in the country as a whole. Does that mean simply that jobs move from one State to another or from one locality to another?

What I am saying is that I don't think the data will support that overall economic activity in this country has gone up, that there has been net job creation in this country as a result of tax exempt financing. It is quite possible that Tennessee, when it started its industrial development bond program back in the late 1950's or 1960's, was able to attract businesses from the Northeast because, at that point, it offered tax exemption to businesses that moved there and some other part of the country did not.

Certainly, there can be economic effects in one locale that are better as a result of the use of tax exemption, but overall, I think the data will not show improvement either in jobs or in general economic activity in this country as a result of tax exemption.

Senator PRESSLER. Yet, the administration's plan decided to leave the governmental activities bonds tax exempt. Why did you leave those tax exempt bonds?

Mr. PEARLMAN. Because we really believe that the traditional notion that State and local government, in undertaking the traditional functions of State and local government, should gain the benefit of the favorable financing cost, the lower financing cost, as a result of tax exemption. That is why we have consistently said that we do not want to impede State and local governments' ability to finance highways and sewers and roads and the normal functions of State and local government.

Senator PRESSLER. Under the 10-minute rule, I am just about out of time, and I will call on my colleagues, but let me ask one more question. How much revenue do you believe the Federal Government loses by not being able to tax these IDB's?

Mr. PEARLMAN. Let me give you two numbers. The estimate that we have made in connection with the President's proposal is a 5-year estimate that about $15 billion, beginning with a fairly modest amount in 1986 of $300 million but rising to $4.5 billion in 1990, so it is about $15 billion if you look at all of the——

Senator PRESSLER. Would those bonds that have been issued be grandfathered? Let's say a 40-year bond were issued last year, it would be grandfathered in?

Mr. PEARLMAN. Yes; and that is the reason you see the numbers are fairly small in the early years.

Senator PRESSLER. I see. They get bigger as they go on.

Mr. PEARLMAN. That is correct.

Senator PRESSLER. Which chart are you looking at?

Mr. PEARLMAN. I am looking at—I don't know whether you have it in front of you—but the President's tax proposals, the book that presumably you do have.

Senator PRESSLER. Yes; we have that.

Mr. PEARLMAN. It has a revenue table in the back.

Senator PRESSLER. Let's make that revenue page a page of the record at this point. I think it is important. If my staff could bring that to me later on, we will come back to it.

Mr. PEARLMAN. For the record, it is page 458.

[Material follows:]

($billions)

	Fiscal Years				
	1986	1987	1988	1989	1990
Repeal P&C insurance company deduction for addition to protection against loss accounts					
Corporate	.1	.1	.1	.1	.1
Limit deductibility of P&C dividends					
Corporate	.1	.1	.1	.1	.1
Repeal special tax exemption, rate reductions, and deductions of small mutual P&C companies					
Corporate	*	*	*	*	*
Financial institutions, subtotal:					
Individual	-.2	-.5	-.5	-.7	-.9
Corporate	2.1	4.2	4.9	5.7	6.9
Insurance Investment Income:					
Repeal exclusion of inside buildup					
Individual	--	--	--	*	.2
Repeal exclusion of current annuity income					
Individual	*	.1	.2	.3	.4
Insurance investment income, subtotal:					
Individual	*	.1	.2	.4	.6
State and Local Government Debt and Investments:					
Repeal exemption for nongovernmental bonds					
Individual	.4	1.8	3.5	4.7	5.5
Corporate	-.1	-.3	-.6	-.9	-1.0
Tighten restrictions on tax exempt bond arbitrage					
Individual	.1	.2	.2	.2	.2
Corporate	*	*	*	*	*
State and local government, subtotal:					
Individual	.5	2.0	3.7	4.8	5.7
Corporate	*	-.3	-.6	-.8	-1.0
Special Expensing and Amortization Rules:					
Repeal expensing of conservation expenditures and farmers fertilizer and field clearing					
Individual	.4	.9	.1	.1	.1
Corporate	.4	.3	.1	.1	.1
Repeal 5 year amortization of expenditures for rehabilitation of low income rental housing					
Individual	*	*	*	*	*
Corporate	*	*	*	*	*
Repeal 5 year amortization of pollution control					
Corporate	*	*	*	*	*
Repeal 50 year amortization of railroad tunnels and bores					
Corporate	*	*	*	*	*
Repeal 5 year amortization of trademark expenses					
Individual	*	*	*	*	*
Corporate	*	*	*	*	*

Senator PRESSLER. Do you have any revenue reflow figures, that is, if the Federal Government loses $15 billion, does it gain by having jobs created, by people working and paying income tax, by products being made, by economic activity being generated?

Mr. PEARLMAN. Again, Senator, I think our analysis is that there is no net job creation, no net revenue to the economy as a result of private purpose obligations. Let me emphasize again that there may be job creation in a particular city if that city is very aggressive in permitting the issuance of tax exempt obligations, but our data would not indicate that the gross national product in this country or that net employment in this country is increased as a result of tax exemption.

Let me give you one other number that might be instructive. The current tax expenditure budget shows a $2.8 billion revenue impact just from small issue IDB's. Obviously, that number would be expected to grow in the future if these proposals do not go forward and they are included. That $2.8 billion, as it grows, would then be included as part of the numbers I referred to in the revenue table.

Senator PRESSLER. Let's say the Congress passed the President's plan and cut them off, there would be revenue lost for—40 years is about the longest any revenue bonds are issued for.

Mr. PEARLMAN. You are correct, and what you would see is a continually increasing number as the old bonds are supplanted by new bonds. So, the amount of nongovernmental obligations outstanding is going to continue to grow.

Senator PRESSLER. Is there a 40-year limit?

Mr. PEARLMAN. There may be some State law limits. I am sure there probably are, but I think you are right. You will rarely find obligations out very much longer than that. There may be some longer; I am not aware of that.

Senator PRESSLER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

First, Mr. Pearlman, I would like to take up the subject which you have touched upon which is the protection of traditional functions of State and local government. You said that you have exempted governmental bonds because you didn't want to impact those traditional functions of State and local government. Yet, you are proposing the elimination of the tax deduction for State and local taxes which clearly is going to impact on the traditional functions of State and local government in a very major way, as a matter of fact.

Today, I received a letter from the Secretary of the Treasury which I presume was received by other Senators in States that have large State and local taxes that would lose the deduction under your proposal which reads as follows:

> DEAR SENATOR LEVIN: I understand that you may have received information regarding the repeal of state and local tax deductions and its effect on taxpayers in your state. Such data is being circulated, and much of it is incorrect or misleading. In order that you may have accurate data, I am enclosing information that summarizes the impact of our proposals regarding this issue on your State.

Again, I assume every Senator, at least in the States that have the large State and local tax liabilities, got a similar letter today.

Senator D'AMATO. Might I at this point ask my colleague for the opportunity to indicate that I also received the exact same letter,

and I think it is a piece of drivel. They would have to have some nerve sending out that letter. I thought perhaps I was the only one who had received this.

Senator LEVIN. You have good company.

Senator D'AMATO. This is the thing that I really get somewhat upset about. We must all have incorrect information, I guess, and they are the only ones that know what the correct information is.

Mr. PEARLMAN. Senator, let me just——

Senator LEVIN. Let me just get to my question, and you can comment if you want. I would like to get a specific question to you, because there is a representation that you are making in this letter that this is the complete information. Don't listen to the other facts that you have been getting about the impact of the loss of the deduction for state and local taxes, so you send along the real information. This is the real poop, and the real poop that you sent us is a one-earner family.

My question to you is, under the formula which you have given to us, is it not true that a two-earner family loses under the very example that you have sent to me. In Michigan, you have given us the gross. You say current law, $33,930, and you go through all of the various assumptions. My question to you is, and I think this is right in your bailiwick, if this were a two-earner family instead of one, earning the same gross, is it not true—and it is a very specific question—that the people in my State and I presume other States that have large amounts of State and local taxes would be worse off under the President's proposal than they are under current law?

Mr. PEARLMAN. It could be. It could be, but let me make a couple of comments, Senator, because I don't share your view as to the characterization of the letter. Let me begin by saying that we sent the letter because, in fact, Members of the Senate had received information from others that we believe was inaccurate. It was inaccurate because it did not accurately describe the way in which the President's proposals operate and was inaccurate in making representations, we thought, based on the data we have available to us through our computerization of tax return information, that inaccurately described levels of State and local taxes, for example, and certain other expenses, income levels in various States.

We did not represent the letter as being the entire story on State and local taxes. We know, and we all know, that the only way you could evaluate the impact of that provision is to look at a particular State and to look at a variety of settings in that State. In some States, yes, if you take away not the State and local tax deduction—it has nothing to do with the State and local tax deduction—but the removal of the two-earner deduction which is another piece of the President's tax reform proposal combined with high State and local taxes would result in a tax increase.

Senator LEVIN. Then, why didn't you say that? You make a representation here. You say, the Secretary of the Treasury says, "In order that you may have accurate data, I am enclosing information that summarizes the impact of our proposal regarding this issue on your State."

Like hell it summarizes it. This takes a certain assumption which is the one-earner family and says that particular family at

that particular level will be ahead. That doesn't summarize the situation in Michigan. Do you know what percentage of our families are two earners? Do you have any idea?

Mr. PEARLMAN. No.

Senator LEVIN. Well, give me a national figure.

Mr. PEARLMAN. I just can't; I don't know.

Senator LEVIN. Are a third of our families two earners?

Mr. PEARLMAN. I don't know the answer, Senator, so I can't give it to you.

Senator LEVIN. Is it relevant?

Mr. PEARLMAN. Is it relevant?

Senator LEVIN. Is the question a relevant one?

Mr. PEARLMAN. Of course, it is a relevant question, but I don't think it is relevant to the letter. The letter was seeking to clarify data that was based on one-earner families that had been distributed, that had been used publicly——

Senator LEVIN. We have gotten data based on two-earner families, too.

Mr. PEARLMAN. I would be happy to give you two-earner family data.

Senator LEVIN. I think it would be very useful if you would, because when you send a letter to Members of the Senate saying that, "What is attached for your State summarizes the situation" and you pick the example which proves your point and ignores a very statistically significant example which disproves your point, to wit, the two-earner family, you aren't summarizing a situation at all. You are skewing a situation.

So, I would think it would be extremely important that the Treasury Department, No. 1, find out how many two-earner families there are in this country. You don't seem to have any idea as to how many there are. I would think you would know about how many there are.

Mr. PEARLMAN. Well, I am sorry. I would tell you if I knew, Senator.

Senator LEVIN. I would think you would know. My point is you don't know.

Mr. PEARLMAN. What I do know, because I have this in front of me, is that 59 percent of the returns in Michigan in 1982 did not itemize at all, so that——

Senator LEVIN. What percentage of the households didn't itemize?

Mr. PEARLMAN. We don't——

Senator LEVIN. I know that 59 percent of the returns didn't itemize, but what percentage of the households? You folks are trying to portray yourselves as being pro family. What percent of the households did not itemize?

Mr. PEARLMAN. I would think, generally, Senator, although it won't be always the case, but we are looking at families, so my guess is that the number of families itemizing and the number of the households itemizing is going to be the same. There may be some minor variation.

Senator D'AMATO. What?

Mr. PEARLMAN. Household and family return is going to be about the same number.

Senator LEVIN. OK, and you are telling me, to get back to my point, you don't know whether one-third of our returns are two——

Mr. PEARLMAN. I simply don't know the answer. I will be happy to get it for you.

Senator LEVIN. Well, I have to tell you I am amazed.

Mr. PEARLMAN. I just don't know the number.

Senator LEVIN. Well, I am amazed that you have no idea, because that is a very, very relevant fact. If you are going to represent to the U.S. Senate that that attachment summarizes the impact when, in fact, it may not apply to a third of the people—I don't know the figure; you should know this figure——

Mr. PEARLMAN. Well, I can tell you in Michigan it doesn't apply to 59 percent of the returns because 59 percent of them don't itemize. Those taxpayers are not going to be affected at all by these proposals.

Senator LEVIN. But you don't know whether or not that general impact is two-thirds, 59 percent, 75 percent, or what.

Mr. PEARLMAN. If the question you are asking is how many taxpayers in Michigan are two-earner, I can't answer that question. I will be happy to get it.

Senator LEVIN. All right. And you agree it is a relevant question.

Mr. PEARLMAN. Well, I will be happy to give you the information.

Senator LEVIN. Well, would you agree it is a relevant question?

Mr. PEARLMAN. I don't have any problem with the question. If you think it is relevant——

Senator LEVIN. Well, do you think it is relevant?

Mr. PEARLMAN. I don't really look at it—I mean, if what you want to know is how does the proposal impact two-earner families, of course it is a relevant question.

Senator LEVIN. If a third of our families are two-earner, would you not agree that that is a statistically significant number?

Mr. PEARLMAN. Not when you have 59 percent of the taxpayers who don't itemize at all.

Senator LEVIN. So that if 25 percent of the families in Michigan are worse off just because of that one thing, the loss of the deductibility of State—let me finish. If 25 percent of our families are worse off because of that one item, would you say that is relevant?

Mr. PEARLMAN. But, Senator, what we are representing is that 25 percent of the families in Michigan are not worse off as a result of the loss of State and local, and the only item that you add by saying two-earner versus one-earner has nothing to do with State and local taxes. It is the loss of the two-earner deduction.

Senator LEVIN. Of course. Of course, but you are making a representation——

Mr. PEARLMAN. If what you are saying——

Senator LEVIN. No, no. Wait as minute. This is critical to what the Treasury is doing here. You are making a representation that families in States that have a lot of local and State taxes and taxpayers are still better off under the President's proposal despite the loss of that deduction. That is your whole point. The thrust of this is look, you are still better off. You give us a bottom line figure. The bottom line figure that you give us is that they are $192 better off. That is your bottom line figure.

What I am telling you is that you take the one-wage earner family and show that he is $192 better off. You ignore the two-wage earner family which is a statistically significant number, and I am representing to you that they are worse off under the President's plan. I am not saying they are worse off because of the deduction.

Mr. PEARLMAN. Well, that is the point.

Senator LEVIN. No, no. Let me finish. You are darn right it is important. I am saying they are worse off under the President's plan, and I think that when you want to make a representation to the U.S. Senate that this attachment represents, and these are the words of the Secretary of the Treasury, that this represents—his word is, it "summarizes the impact of our proposals on your State." No, it doesn't.

Mr. PEARLMAN. I would be happy to try to provide the information you have asked for.

Senator LEVIN. The figure I have, by the way, is about 48 percent of the people in Michigan are two-earner families.

Mr. PEARLMAN. I can't confirm it, because I don't know what the number is.

Senator LEVIN. OK. I am probably out of time, so I will come back to the other. I wanted to ask you some questions about these revenue bonds, as well.

Senator PRESSLER. Senator D'Amato?

Senator D'AMATO. I am deeply disappointed, Mr. Chairman. Here I thought that I was the only one who got this deceptive letter. Now, I hear that my good friend also is receiving that kind of mail.

By the way, do we assume that is just for a family of four? What happens if it is a family of two? Then are they better or worse off?

Mr. PEARLMAN. Senator, again, let me try to summarize what we think are national conclusions as having been confirmed by the analysis we have done. No. 1, in virtually every State, indeed, I think it is accurate to say every State, the number of nonitemizers is a substantial percentage, and they are by far better off. Second——

Senator D'AMATO. Mr. Pearlman, we know. Wait a second. Come on. Save that for the demagoguery in front of the television when first Mr. Regan came forward and said, you know, 60 percent don't itemize. I can tell you what will happen in my State. When the people who do itemize start leaving the State the way he first indicated, and I am talking about Donald Regan, you know what that is going to leave those poor people who don't itemize with, if they have jobs, when America begins to shift demographically. We are making winners and losers out of States? That is not tax equity. That is not fairness. That is not fair play by any standard.

Let me ask a question. Isn't there something called a tax credit? The United States taxes its citizens and residents including corporations on their worldwide income, and to avoid international double taxation, when the foreign income of the U.S. citizen or corporation is taxed in a foreign country, the United States permits its taxpayer to elect a credit of the foreign income taxes paid against his U.S. tax liability. Isn't that the case?

Mr. PEARLMAN. Right.

Senator D'AMATO. That is so that he doesn't pay taxes to a foreign government and then is taxed again on that income.

Mr. PEARLMAN. Well, it is——

Senator D'AMATO. Isn't that basically, essentially the case?

Mr. PEARLMAN. Yes, but it is based on a theory, on the international theory that says the jurisdiction where the income is earned is the jurisdiction that has the right to tax. It is not a situation in which two jurisdictions overlap in terms of where the income is earned. The foreign tax credit is really not analogous, it seems to me.

Senator D'AMATO. It is not analogous?

Mr. PEARLMAN. I would submit to you it is not.

Senator D'AMATO. Well, let me just tell you I take these from the facts, and I quote exactly from page 385 of the proposal, and I didn't invent these words, but I simply say why is international double taxation bad and domestic taxation for U.S. citizens acceptable?

What you are saying is that if you are a corporation or an American who pays taxes abroad from income that was earned outside of the country, you should then reduce that liability that citizen might have here in this country with a tax credit. However, if you pay taxes, as a U.S. citizen to any of the 50 States or local jurisdictions, you should be doubly taxed. You shouldn't have that same right. You don't see some basic inconsistency there?

Mr. PEARLMAN. No; I don't. In fact, if you look at—and indeed, I would submit to you, the States don't. If you take New York—I use New York just illustratively because it is just 1 of 35 States which has taken that very same issue and has treated it the same way. That is, in New York, if you pay a Federal tax, you are not entitled in calculating your State tax to take a deduction for the Federal tax. So, the issue of double taxation within our Federal system is different than the international tax conventions that have arisen over the years.

Senator D'AMATO. I don't give two hoots and a holler about the international tax conventions. I am talking about our Tax Code, our Tax Code. Let me suggest to you when you begin to say, and when Treasury and others who speak for Treasury say, look, this will force the high tax States to reduce their taxes, why isn't the argument the same? This will force the foreign governments, if they want to keep our corporations doing businesses, to lower their tax rates. Why not? You don't see an analogous argument?

Mr. PEARLMAN. In fact, reduction of marginal tax rates in the United States will have that effect because, unlike a deduction, the credit will be impacted by the reduction of marginal tax rates in the United States. So, there is some pressure being put on foreign governments.

Senator D'AMATO. Let me give you an example. You are paying a tax rate on new investment of 70 percent compared to a U.S. rate of 28 percent. So, why do we want to subsidize Japanese high taxes? Why should we encourage U.S. companies to move to Japan to then take that credit? Why do you want to treat the Japanese better than middle-income Americans who are paying taxes to their local school systems? I don't understand it.

Mr. PEARLMAN. We live in an international economy which——

Senator D'AMATO. We give them our jobs. We encourage Americans to go invest over there, take jobs out of America, pay taxes abroad, because then you can deduct it against what you would otherwise owe the U.S. Government. But if you are a taxpayer paying local property taxes, no. You are paying to a local school district. Somehow that is bad. We are not going to let you deduct that. All of a sudden, we have some intellectuals over there who come up with this great pie in the sky program who convince the President that this is tax equity.

I will tell you that your welfare costs will go up around this country if you begin to force those people who have the ability to move out of high tax States. Who is going to pick up that tab? You are going to see this budget deficit go to $300 billion.

Let me ask you something. When you talk about IDB's should only be used by governments, don't we want to encourage the private sector to become involved in governmental kinds of operations? Don't we?

Mr. PEARLMAN. I can answ your question generally, yes. The problem of course, Senator, and we have had this discussion before——

Senator D'AMATO. You and I have, yes.

Mr. PEARLMAN. Is that it is linedrawing, and when we have private business taking over the marginal governmental activities, then it becomes difficult to draw those lines. We know that——

Senator D'AMATO. Marginal government activities? Disposing of garbage where we have very few jurisdictions in the entire country who are prepared to design and construct solid waste treatment plants and then finance them, when we see more and more governments beginning to turn to the private sector for their investment and their technical capabilities to operate essentially these facilities for that town or county or city? Doesn't it make sense to where an operation is essentially going to be one which is for the people and for that municipality for using the ability and technological achievements of the private sector that can build and operate a facility ostensibly for a municipality, shouldn't they get IDB treatment?

Mr. PEARLMAN. Let me first point out that there is nothing in these proposals that prohibits a local government from building a disposal facility and letting someone——

Senator D'AMATO. As long as it is publicly owned, and you said——

Mr. PEARLMAN. And letting someone operate it on behalf of the locality. There is nothing wrong with that.

Senator D'AMATO. Exactly what you don't want them to do. If we have it established that in most cases the private sector can build a facility more economically and that there is no effect on the Government we have taken an arbitrary standard, precluding ourselves of the private sector partnership with Government where it makes sense?

Mr. PEARLMAN. Well, in fact, it has cost the Government revenue because that transaction permits the combination of all of the other tax incentives that are given to privately invest assets, depreciation, whatever else might be available, interest expense deductions that might be beneficial to that individual payer, and tax ex-

emption privilege. So, to respond to your question, yes, there is a higher cost to the Government.

Senator D'AMATO. Who gets the higher cost?

Mr. PEARLMAN. Senator, that is an issue that is always the case with tax exempt interest. I presume, in asking that question, you mean who really pays it. Of course, taxpayers pay it, and we think the best way, because of that, because taxpayers pay it, we think the best way to identify what that cost is is to let the market operate in a taxable market.

Senator D'AMATO. Well, we will just keep one up. Let's get rid of general municipal tax exempts then.

Mr. PEARLMAN. There are people that have argued over the years that, in fact in 1954, there was a strong argument made in favor of getting rid of general tax exemption for State and local government.

Senator D'AMATO. Can we do it for the Federal Government, too?

Mr. PEARLMAN. We made a judgment that we did not want to take that privilege away, not for constitutional reasons, but because——

Senator D'AMATO. That is only the cost of doing business.

Mr. PEARLMAN. Because we wanted to give local government the benefit of using tax exemption but not to combine tax exemption with a variety of other tax benefits that might be available to a private individual.

Senator D'AMATO. You mean building a garbage plant and disposing of a municipality's solid waste can distinguish between something private and something public?

Mr. PEARLMAN. Senator, we could construct an example where it is exactly the same, obviously. I wouldn't have any quarrel with that. If it is public, if it is publicly constructed, then we know it is public. When it is privately constructed, we don't know that, and as you know, many of the waste disposal facilities that have been constructed with private funds have really just been the adjunct of private manufacturing facilities and have had nothing to do with the disposition of municipal waste.

Senator D'AMATO. Well, I would suggest to you that whether it be in that area, or whether it be in the area of prisons, we are attempting to get the private sector to undertake its share of privatization so that we save taxpayers in the long run. The Federal Government is being rather short-sighted in an effort to save a few dollars immediately.

Mr. Chairman, I have gone far beyond my time. I would commend the chairman for calling these most important hearings.

Senator PRESSLER. Thank you. I shall ask another round and then hear from each of you again.

Under the administration's earlier proposal for the creation of enterprise zones, there was a provision permitting small issue IDB's in those zones. The administration proposal recognized specifically that tax exempt IDB's are an important tool for encouraging business development and job creation in the zones. The enterprise zone proposal also recognized that State and local governments are best served by the Federal Government when they decide what development projects are important rather than bureaucratic network in Washington.

The proposal to eliminate IDB's, however, cuts away at the resources of the State and local governments to create the projects essential to revitalizing our local communities and creating jobs.

Do you agree? Obviously not, at this moment, but earlier when the administration did have the enterprise zone program, they did have the IDB's as a part of it. Why was that?

Mr. PEARLMAN. I would never—and I think my prepared statement indicates and my earlier comments indicate—I would never disagree that IDB's aren't beneficial to the business that has the good fortune to be able to use them. Clearly, it is. What we know, however, and it is true with enterprise zones as well, is that everyone has IDB's available.

So, as a matter of whether it is beneficial to the economy as a whole or whether it is beneficial to a particular locality, we think the answer to that is no because the industrial development bond privilege has been used by everyone. Every locality uses industrial development bonds, and therefore whatever benefit there is is simply the benefit of providing lower cost loans, lower interest loans, at the cost to the Federal Government.

Clearly, it has that benefit. It would in an enterprise zone or anyplace else an IDB is used.

Senator PRESSLER. As I understand it, you argued that IDB's are an inefficient subsidy for the businesses that receive them. Do you have any alternative proposals that would be more efficient yet fair to the small businesses, and are there any plans to submit an alternative program?

Mr. PEARLMAN. Mr. Chairman, I think the issue with respect to small business incentives, loan incentives is what we are talking about, has been addressed by the administration directly on the spending side of the budget, for example, in connection with SBA loans and guarantees. And I think we presume that in the event the Congress or the administration wishes to expand favorable loans, guaranteed loans, low interest loans for small business that it is best handled through the direct appropriations process in which we can debate clearly and without having to speculate about the benefit to a particular kind of business or the extent of the benefit what the cost is and what kinds of businesses are being benefitted.

To my knowledge, at this point we have no intention to submit any kind of legislation recommending additional direct expenditure programs.

Senator PRESSLER. Under the Tax Equity and Fiscal Responsibility Act, the TEFRA Act of 1982, issuers are required to make quarterly reports to the IRS on all issues. These reports are to the IRS. Could you provide the committee with a breakdown for 1983 and 1984 of the number of small issue IDB's under $1 million, under $500,000 and what percentage of the total amount of all small issues fall within those categories?

Mr. PEARLMAN. The 1984 data, incidentally, is not yet available. The 1983 data was published last year but apparently not in the way you have requested it, but we will do that for you, and we will be happy to provide that to the committee.

Senator PRESSLER. All right. You made the argument that private activity tax-exempt bonds actually increase interest costs for

traditional State and local borrowers, that is, so many go to the private businesses that increases the interest rates.

I am told that absolute volume is not a factor in determining relative interest rates for tax exempt borrowers. Theoretically, relative supply could affect relative rates but, in fact, it has not. The relative supply of tax exempt bonds relative to the total U.S. credit market has actually declined 18.4 percent during the past decade, so supply cannot have increased relative rates.

How would you respond to that?

Mr. PEARLMAN. I think all that—first of all, I don't know if that data is right, but let's assume it is. All that data tells us is that if you throw three or four variables into an assumption that some other variable may control the conclusion that comes out of that. The thing that we have said and that we will stand by is that given a stated demand level, that is, a demand for x number of dollars of tax-exempt obligations by the community of purchasers of tax-exempt obligations, then if you increase the supply in the dramatic way that has occurred over the last 10 years, then by definition, the interest rate has to go up.

Now, it may well be that other factors, the use of international funds or the growth of the debt market generally, could have had an effect on the other side holding tax-exempt rates down. But focusing on simply the mix of those obligations issued by the governmental unit for governmental purposes and those obligations issued for private purposes, clearly, that had to have driven interest rates up.

Let me put it another way. If whoever provided that data is correct, and if there had been no nongovernmental obligations, then there would have been further downward pressure on tax-exempt rates, and State and local governments should have been able to finance their traditional governmental activities even more cheaply than they could, again, simply because there is a certain demand out there and the demand will pay for those obligations.

Senator PRESSLER. On your point that tax exemption for IDB's creates a revenue loss, there have been strong arguments made against that. For example, the Congressional Budget Office has estimated that the revenue loss attributable to tax-exempt bonds are grossly inflated due to the fact that they are based on inaccurate assumptions about investors' portfolios. The Treasury assumes that only the highest tax investors purchase tax-exempt bonds, and earlier, you responded to a question suggesting that is true. Middle income investors are presumed to hold only partially taxed assets such as corporate equity, and investors subject to low marginal tax rates are presumed to hold only taxable bonds.

However, as I understand it, that is just a presumption. In fact, Federal Reserve data indicate that no such distinct groupings of investors exist. Rather, holders of tax-exempt securities can be found in many tax brackets.

Thus, the assumption that only the highest taxed investors would switch if the supply of tax-exempt bonds were reduced may be false, and the calculation of increased revenues from legislative restrictions are inaccurate. In addition, these estimates fail to take into account the effect of the issuance of tax-exempt bonds for public type projects. Of course, you haven't touched them.

Finally, none of the estimates take into account the revenue reflows for new economic development attributable to IDB's.

Now, it is difficult to get definitive data, but I do have a cite from the 1983 study by the New Jersey Economic Development Authority. The study estimates that for each $1 lost in Federal tax revenue, over $3 is gained through a combination of growth in personal and corporate income taxes. The estimate for job creation is generated from actual data, not estimates based on required annual reporting of actual employment for all IDB financed projects in New Jersey.

So, those two points, if you would deal with them, one, the brackets of investors, the presumption that only the highest income people invest in IDB's which, I am told, is not necessarily the case, and two, the revenue reflows which you already touched on.

Mr. PEARLMAN. Let me deal with the last one first. Again, I am not familiar with the New Jersey numbers, but I will stand by the statement we made before, and that is that we don't believe there is any net increase in GNP in this country as a result of tax exempt obligations. It is quite possible that the State of New Jersey, which may have had a particularly generous tax exempt obligation program which permitted the issuance of these obligations more than some other State, showed greater employment in that state.

However, that is not what is of importance to us. What we should be interested in, I submit, is not how one State uses the obligations, but rather does extending the tax-exempt privilege or continuing to extend it to private purpose obligations have an overall net improvement in GNP and employment in this country? As I indicated to you before, we think the answer to that question is no, and I will stand by that statement.

With respect to the question of, if I can use a different term, the distribution of who invests in tax exempt obligations, I think when you asked me that question earlier on, if I didn't answer it earlier I want to make sure I do, I hope I did not indicate to you that all tax exempt obligations are purchased by high income taxpayers. What I thought I said, but I want to make sure I say it accurately, is that tax exempt obligations are purchased in relationship to tax rates. You find a higher concentration of tax exempt obligations in higher brackets.

Senator PRESSLER. Is that true? I mean, that would be the logical pattern.

Mr. PEARLMAN. That is not only logical, but there are analyses that support that. In fact, one of them was coauthored by a member of my staff and a gentleman who is now with the Congressional Budget Office, and I will be happy to provide that to you.

Senator PRESSLER. Yes, I would like to see that.

Senator Levin.

Senator LEVIN. Mr. Chairman, just to wind up the other matter which we talked about, I wonder if Senator D'Amato might be willing to join me in requesting the Treasury Department to send out a letter relative to the two-wage earner family. For those people who got this letter, it just showed a one-wage earner family. Because the results are very different. At least in the example you gave me, it turns out that the two-wage earner family comes out under the

President's proposal as a loser rather than a winner under this very same assumptions and figures. The one that you sent to us to try to persuade us that we are wrong only used the one-wage earner family.

Mr. PEARLMAN. Let me take that request back, but let me say again, Senator, and I think it is very important, I think it is unfair to—I have no problem dealing with the second wage-earner, but I think it is unfair to tie that issue into the State and local tax issue, because they are different. I think it is quite appropriate to say what does the loss of the second earner deduction or what does the restriction on interest expense or any of the other items that are in the President's package have on various family groups?

Senator LEVIN. Is it also unfair, then, to tie the one-earner family into the State and local tax issue?

Mr. PEARLMAN. What we did in order to—the one-earner family or Senator D'Amato described it as the family of four which has been the traditional standard example that has been used in evaluating tax proposals—that is nothing new today.

Senator D'AMATO. Since when?

Mr. PEARLMAN. We have been using it for years, Senator.

Senator D'AMATO. That is just the problem.

Senator LEVIN. I think you use it when it helps; you don't use it when it hurts. My question is this——

Mr. PEARLMAN. Let me just say again, let me just make the statement again that whether you use one earner or two earners has no effect on the State and local tax analysis at all. It may well have an effect because of the two-earner deduction.

Senator LEVIN. Doesn't it have a very drastic bottom line effect? Look, the Secretary of the Treasury sends us a letter saying that look, folks, even with the loss of the State and local tax deduction, you are still ahead in your State. And the Secretary says that this chart that he sends us summarizes the impact of our proposals regarding this issue on your State. Now, just by chance, you are saying, just by chance, it picked the one-wage earner family.

Senator D'AMATO. With four children, Senator.

Senator LEVIN. What I am telling you is that in my State, 48 percent of the married couples filing returns report two incomes, 48 percent. That is a statistically very significant number of people. I am saying to you that I would bet you that the Secretary of the Treasury never would have sent this letter if the example that he was handed by his staff was a two-wage earner family, because it would have come out wrong. Rather than coming out that the President's proposal still helps, with the two-wage-earner family, it would have had to be, bottom line, the President's proposal leaves you worse off than you are now.

Now, that is a very critical difference in terms of the impact. The whole purpose of that letter was persuasive, and it ain't very persuasive in terms of supporting the President's proposal on tax reform if your bottom line is that you are worse off. And that is the situation, again, where we have the two-wage-earner family under the assumptions which the Secretary of the Treasury gives.

So, it is a very misleading letter, I believe, and again, though I don't want to speak for Senator D'Amato, I think it would be extremely helpful if the Treasury Department sent to everybody who

got this letter the same assumptions, the same facts, with two wage-earners, not just one. And then let people see whether they are better off with the President's proposal overall than they are now.

Would you like to join me or am I putting you on the spot?

Senator D'AMATO. I would like to join you.

Senator LEVIN. OK. Let me now get to the other subject that has been touched upon, the major subject of this hearing, and that has to do with these tax-exempt bonds.

First, your testimony today is, in part, that a direct subsidy program could provide the same subsidy to the intended beneficiary at a lower cost to the Federal Government or a larger subsidy to the intended beneficiary at the same cost to the Federal Government, and I believe our chairman has pressed you somewhat on this today as to whether you are going to replace this lost program, if you have your way, with something else, a direct subsidy, a tax credit, or something else, and you said you didn't know of any, basically.

Mr. PEARLMAN. We are going to replace it with lower tax rates, Senator.

Senator LEVIN. No, in terms of any direct way of giving an incentive for these particular goals.

Mr. PEARLMAN. I am not aware of any, in any of these proposals, I am not aware of any intention of replacing a tax incentive with a direct subsidy.

Senator LEVIN. OK. You are not going to propose in any of these areas a direct subsidy for the indirect subsidy.

Mr. PEARLMAN. That is correct.

Senator LEVIN. Isn't it a bit disingenuous for you in your testimony to be arguing that a direct subsidy program could provide the same subsidy to the intended beneficiary at a lower cost when this administration opposes direct subsidies?

Mr. PEARLMAN. I don't think it is disingenuous. I think the purpose of the testimony, and I think it is clear on its face, is to say that if the Congress wants to provide a direct subsidy or wants to provide a subsidy, let me put it that way, to a particular category of people, then it can be done more efficiently through a direct subsidy. We are not advocating a direct subsidy, and I would guess——

Senator LEVIN. As a matter of fact, you are opposing it.

Mr. PEARLMAN [continuing]. That if the Congress were presented with a direct subsidy in which it said let's provide an across-the-board reduction in interest rates for all loans by every business under a certain size in this country, I would guess that there would be concern for that. There clearly would be within the administration, and my guess is there would be within Congress.

What we have tried to do, and it is not unique to the tax exemption issue, but it is true with a number of indirect subsidies that are currently contained in the Tax Code, we have tried to remove those, because we don't think people did intend to provide those indirect subsidies, and replace them with lower tax rates.

Senator LEVIN. As a matter of fact, the administration opposes a direct subsidy, right?

Mr. PEARLMAN. I presume so, but I must tell you I am not speaking with knowledge. My presumption is that the administration

would direct subsidy that, for example, would be a replacement for the tax exemption privilege. I think that is a fair assumption.

Senator LEVIN. So, it is a fair assumption that while you are testifying that a direct subsidy program could provide the same subsidy at a lower cost, more efficiently in other words, you are also opposed to that.

Mr. PEARLMAN. We are more interested in seeing the——

Senator LEVIN. I understand, but to put it very simply, you are also opposed to the direct subsidy. Is that not accurate?

Mr. PEARLMAN. We are not in favor of replacing indirect tax subsidies with direct subsidies in general. That is correct.

Senator LEVIN. So, whether they are more efficient or not is really irrelevant.

Mr. PEARLMAN. Well, I don't think so.

Senator LEVIN. You are opposed to both of them.

Mr. PEARLMAN. I don't think those two follow, Senator.

Senator LEVIN. All right.

You mentioned the Small Business Administration. You said, here is a good example. I don't have your exact words, but basically the Congress can decide what level to direct and guarantee loans on small business. As a matter of fact, is it not true that the administration proposed the elimination of the Loan Guarantee Program?

Mr. PEARLMAN. That is true, yes.

Senator LEVIN. And has also proposed the elimination of the Direct Loan Program?

Mr. PEARLMAN. I am not sure of the latter.

Senator LEVIN. My final question is this in terms of the cost to the Treasury, and the chairman has also asked you questions about this, and this is the reflow issue that Senator Pressler was touching upon: Has the Congressional Budget Office analyzed reflows do you know?

Mr. PEARLMAN. The Congressional Budget Office has a study of tax-exempt obligations, and they have analyzed reflows.

Senator LEVIN. Do you disagree with that?

Mr. PEARLMAN. If the Congressional Budget Office, and I must tell you that I am not sure that it has, has reached the conclusion that overall economic growth in this country, overall levels of employment in this country have increased as a result of tax exemption, yes, we disagree with that.

Senator LEVIN. Do you agree that there is some increase in taxes as a result of the reflow following the issuance of these bonds on a tax exempt basis?

Mr. PEARLMAN. No, we do not agree with that. That there is an overall increase in tax revenues in this country?

Senator LEVIN. No. I didn't say that. I said is there any increase in taxes as a result. I am not saying net increase.

Mr. PEARLMAN. Do you mean, do some taxpayers have higher taxes as a result of these——

Senator LEVIN. Are people working who otherwise might not be working.

Mr. PEARLMAN. That is possible. Of course, it is possible.

Senator LEVIN. So, when you say that there is no net revenue to the economy because of the issuance of bonds, what you are saying

is that the loss to the Treasury of tax revenue is not made up for by the taxes which are going to be paid by people going to work as a result of the issuance?

Mr. PEARLMAN. No, that is not what I am saying. It is more than that. It is that simply because a certain locale makes a decision to build a plant and employ some people doesn't mean there is net employment increase. Unless you assume that there is net increases in GNP in the country, net employment increases, simply means somewhere else in the country, maybe even somewhere else in that same locale, another plant was not plant or other employees were displaced. In fact, we had that happen when States in the South started using industrial development bonds and building factories in the South. What happened was manufacturing plants in the Northeast were closed up. People were put out of jobs in those areas, and those plants were relocated in the South.

That is all we are saying. We are saying you can't look at a particular city or a particular State. You have to look nationally, and we do not think there has been net increases as a result of tax exempt obligations. In addition to that, there is a revenue cost to the Federal Government.

Senator LEVIN. I would suggest to Senator D'Amato who is chairing our hearing at this point because Senator Pressler had to leave for a vote that we ask the CBO to take a look at the Treasury proposal and to come up with their own analysis including any reflows. An analysis in 1981, according to the testimony that I have seen, indicates that Federal revenues would actually increase slightly as a result of the issuance of new IDB's. So, I can't argue with Mr. Pearlman on this today because I don't have any current information from the CBO. The last we have is 1981.

I think it would be useful, if they haven't already been asked, and they may have already been asked by some other committee, Mr. Chairman, but if not, that we ask them to do the type of analysis on the Treasury's proposal and the estimate of gain to the Treasury by elimination of the tax exempt status and apply the same analysis to that as they applied in 1981 to an earlier issue which was similar to this.

I want to thank Mr. Pearlman for being here today.

Senator D'AMATO. Let me say for the record, No. 1, that I have a statement that I would like to put into the record as if read in its entirety. Second, I am going to ask counsel to ask that request of the committee chairman, Senator Weicker, if he would make that request from CBO. I think it is appropriate.

Frequently we have been confronted with a so-called revenue loss. There were no estimates given of reflow. I really believe that it is difficult for one to seriously contend that with all of the IDB investment that there were no new jobs created, that every single job or expansion would have taken place with private funds, that all of the IDB's resulted in direct losses to the Treasury with no offset as a result of the jobs that did come into creation as a result of the IDB's.

[The prepared statement of Senator D'Amato follows:]

STATEMENT OF SENATOR ALFONSE M. D'AMATO ON IDBs

SENATOR PRESSLER, I COMMEND YOU FOR CALLING THIS HEARING TO REVIEW THE IDB PROGRAM. HISTORICALLY, IDBs HAVE HELPED CREATE JOBS AND HAVE ALLOWED MUNICIPAL SERVICES TO BE DELIVERED AND FACILITIES TO BE BUILT ON A CHEAPER BASIS BY PRIVATE COMPANIES.

IDBs HAVE ENCOURAGED MOVEMENT TOWARDS THE PRIVATIZATION OF MUNICIPAL SERVICES. FOR INSTANCE, RESOURCE RECOVERY FACILITIES ARE OFTEN OWNED AND OPERATED BY PRIVATE COMPANIES. ANOTHER EXAMPLE IS NON-PROFIT HOSPITALS OPERATED INDEPENDENTLY WITHOUT LOCAL SUPPORT. THIS IS ALSO THE CASE FOR MULTI-FAMILY LOW INCOME HOUSING AND FOR WASTE WATER TREATMENT FACILITIES.

I AM PLEASED THAT THE TREASURY DEPARTMENT HAS AGREED TO APPEAR TODAY IN DEFENSE OF THEIR PROPOSAL TO DENY TAX-EXEMPT FINANCING WHEN BOND PROCEEDS IN EXCESS OF 1% GO TO A PRIVATE ENTITY. IT WOULD APPEAR THAT THIS PROPOSAL WOULD ENCOURAGE STATE AND LOCAL GOVERNMENTS TO OWN AND OPERATE FACILITIES. I WOULD LIKE TO HEAR TREASURY'S RATIONALE FOR THIS PROPOSAL.

PUBLIC OWNERSHIP OF MUNICIPAL OPERATIONS WILL BE FUNDED BY GENERAL OBLIGATION BONDS. THE END RESULT WILL BE A HIGHER DEFICIT, SINCE LOCAL GOVERNMENTS ARE OFTEN LESS EFFICIENT THAN PRIVATELY RUN OPERATIONS. ON TOP OF THIS, A PRIVATE COMPANY PAYS TAXES ON ITS PROFITS, WHILE LOCAL GOVERNMENTS DO NOT. TREASURY WILL ACTUALLY EXACERBATE THE DEFICIT IN ITS THIRST TO END IDBs.

MR. CHAIRMAN, I AGAIN APPLAUD YOU FOR CONVENING THESE HEARINGS. TAX REFORM HAS SERIOUS IMPLICATIONS FOR THE ECONOMY. WE SHOULD NOT RUSH PASSAGE OF TAX REFORM UNTIL THE SUBJECT HAS BEEN COMPLETELY REVIEWED. THE GOAL OF TAX REFORM IS NOT TO ENCOURAGE LARGER GOVERNMENT INVOLVEMENT TO THE ECONOMY. I HOPE THAT THIS IS NOT TREASURY'S GOAL.

THANK YOU, MR. CHAIRMAN.

Senator D'AMATO. Having said that, let me ask you a quick question for the record. The issue of the IDB bonds used by States to help finance the single family homeowner, the first time homeowner, and the couple that without the available deduction of local real property taxes—we no longer have the mortgage bond to help in the construction of the one-family home for the moderate income wage earner. We no longer have available to that family the ability to deduct one's local real property taxes. Don't you foresee a more difficult time for that family, America's young families, given the loss of the deduction of their property taxes and the loss of the revenue bonds to buy that home?

Mr. PEARLMAN. Senator, you are asking a question I can't answer. I don't know what the effect is. What it requires is that you make certain interest rate assumptions. What kind of interest rate is that investor paying? What State does that investor live in? What is the level of property tax in that State? And I just don't know what the answer is. In some States, obviously, the cost of home ownership will be greater. There is no question about that. And in some States, it will be more than offset by the increases in the personal exemptions and the reduction in the tax rates. I can't generalize.

Senator D'AMATO. I am talking in terms of those people who now have available to them the IDB for home construction or for the mortgage. The loss of that, coupled with the loss of the deduction of local real property taxes, indicates that those young families will have more difficult time gaining home ownership?

Mr. PEARLMAN. Again, it just depends on whether those two, what you describe as adverse and which potentially could increase costs, are or are not offset by the other pieces of the President's package, the increase in the personal exemptions, the increase in the zero bracket amount, and the reduction in the tax rate. I presume in some locales, some taxpayers will be better off and some will be worse off.

We all are tending to forget, we see as the debate goes on, that there are some very powerful positive things that favor young families in terms of exemptions and the zero bracket amount and the tax rates. How those will impact when you add another variable that you have added and that is whatever the favorable interest rate is on a mortgage subsidy bond I simply don't know. I can't answer that question.

Senator D'AMATO. Just a couple of quick questions, if I might, because time is running out. Shouldn't there be an economic impact study or assessment made in regard to the kind of tax proposal that is being put forth? Has there been any made?

Mr. PEARLMAN. Yes, there has been. You may be aware that today the first private analyses, which in my own judgment are the more important ones, were presented to the Ways and Means Committee in testimony today. I think you will see economic analyses. I think they are very important. I think it is important for industry, for the affected industries to do them. I think it is important for academicians to do them, and we are looking forward to having those done. We know that some have been done, although I must say that we don't have any input.

Senator D'AMATO. One other question. If you take away the deduction for local real property tax, won't there be an adverse impact on the value of that home, anyone's home?

Mr. PEARLMAN. It has been argued that it will. I just don't know. I can't answer that question.

Senator D'AMATO. You really can't? If I pay $3000 in local real property taxes on the house that has a value of approximately $100,000, and I can no longer deduct that, isn't the value of that house going to diminish?

Mr. PEARLMAN. I guess in a perfect economic environment, if that were the only variable, then the answer to that question should be yes. But as we all know, as with so many of these things, it was really the discussion that I was having with Senator Levin, there is not one variable, and you simply don't know whether property values are going to go down. It is going to depend on the locale, the interest rates. It is going to depend on what the impact on prospective home buyers is of the package as a whole. If, as a result of the reduction in tax rates that are going to be enjoyed by a majority of people in this country, there is an incentive to purchase homes that wasn't there before, you might find an increased demand for home ownership. It is just difficult to tell.

Senator D'AMATO. I would conclude by saying that there are areas where some people would make substantial gains, those of the upper brackets making $200,000 or $300,000. Yet, those in the working, middle-income families, make very minimal gains under this plan if any. I think the lack of hard evidence on the impact of this plan is one of the great dangers contained within.

I think there should be tax reform. I think the Tax Code cries out for reform, for some simplicity, for making it easier, and for fairness. What I think the American public is really angry about is when they see major corporations which earn millions of dollars and don't pay one penny in taxes. That is what they get angry about. That is what working middle class families care about. Sure, they want to see some fairness. They are not so upset that they are paying taxes, but they want to see that people and corporations who are earning large sums are not allowed to escape the payment of all taxes or most taxes.

I think there are those who recognize this and are trading on that emotion and they have gone far afield, in presenting a tax program that is a fair one as opposed to this proposal that is before us now. I think there are certain areas that are just terribly inequitable, and not just to a number of States, but to vast numbers of people throughout this country. That is my feeling. I guess the debate will continue, and we will hear a lot more said about it.

I want to thank you for your patience and also let you know that the force of my remarks is not directed toward you personally. I hope you know that. You and I have had discussions before. I respect your position and the job that you do. You do it well.

This committee stands in recess.

[Whereupon, at 3:43 p.m., the subcommittee recessed, to reconvene subject to the call of the Chair.]

APPENDIX

BILL SHEFFIELD
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

May 22, 1985

The Honorable Lawrence Pressler
Chairman
Senate Committee on Small Business
Small Business: Family Farm Subcommittee
SR 428A Russell Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

The State of Alaska strongly supports the continued availability of tax-exempt industrial development bonds (IDB's) for small business development and expansion. In our State, the Alaska Industrial Development Authority (AIDA) has made very effective use of IDB's, particularly the small issue IDB's, to help provide needed investment capital to fund the growth of Alaskan business.

AIDA is a State agency that was established to provide or facilitate the financing of industrial, manufacturing and business enterprises in the State. Creation and expansion of these types of enterprises are essential to the development of our natural resources and the balanced growth of our economy. The availability of investment capital through IDB issuances has been an important force in the achievement of these goals.

A major focus of AIDA has been on small business development. These businesses tend to be locally owned and controlled. They provide a stable tax base and a source of employment for local residents. In the competition for investment capital, small businesses are often at a disadvantage because of their size and the costs of financing. AIDA has been able to use the small issue IDB to provide needed capital to these businesses.

During the past two years, AIDA has helped to finance approximately $370 million worth of investments for 257 projects which have created or retained an estimated 6,000 jobs in Alaska. IDB's have been used by the agency to help finance such things as a solid waste incinerator facility, and an industrial building used to fabricate steel tanks.

In its November, 1984, Report to the President on Tax Reform, the Treasury Department recommended the elimination of tax-exempt IDB's along with other types of tax-exempt bonds issued by state and local governments. I have expressed my opposition to this proposal, both individually and through the Western Governor's Association. The use of tax-exempt IDB's as a source of financing and job creation has proven to be an effective and successful means of achieving important public goals in Alaska. The tax exemption is not a one-sided drain on the federal treasury. The additional tax base created by new or expanded businesses and additional jobs is a benefit to both the federal and the state treasuries.

Aside from the Treasury proposal, the small issue IDB program is scheduled to sunset in 1986 for non-manufacturing and in 1988 for manufacturing projects. The American economy has seen a pronounced shift in recent years from a primarily manufacturing to a service oriented economy. This type of business has taken on increased importance in the Alaskan, as well as other states', economies. I would urge that the sunset on small issue IDB's at least be extended to 1988.

Thank you for this opportunity to discuss the importance of tax-exempt industrial development bonds to small business growth in Alaska. I urge you to reject the Treasury Department proposal to eliminate this important source of financing, and to support the continuance of the small issuance IDB for non-manufacturing projects at least through 1988.

Sincerely,

Bill Sheffield

Bill Sheffield
Governor

cc: The Hon. Sam Nunn, Ranking Minority Member
The Honorable Ted Stevens
The Honorable Frank Murkowski
The Honorable Don Young
The Western Governors' Association

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